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THE ARCHITECTURAL REVIEW

VOLUME CII NUMBER 608



The Cover comes from *Novum Theatrum Pedemontii et Sabaudiae*, by Rutger Christophile Alberts, The Hague, 1726. It is a detail from plate 61, volume II, and shows the castle and part of the town of Dolc'acqua. Another example of a large building with smaller ones clustering under it on a steep site forms this month's frontispiece. At Dolc'acqua there is drama in the contrast between the castle, dominant and domineering, and the insignificant houses on the slope below, but this contrast (exaggerated of course in the engraving) is the result, if not of accident, at any rate of non-architectural factors and is correspondingly un-subtle. In the frontispiece, Sir Giles Scott's proposals for Liverpool are used to discuss the deeper relationship between the different buildings on a given site—the deliberate interplay of form and form—that might be established if the effect of the whole were allowed to emerge from the architect's vision.

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J. M. Richards
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Osbert Lancaster
H. de C. Hastings

Assistant Editor
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Assistant Editor production
Marcus Whiffen

Assistant Editor art
Gordon Cullen

Editorial Secretary
Felicity Brown
(Whitehall 0611-0616)

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THE ARCHITECTURAL REVIEW

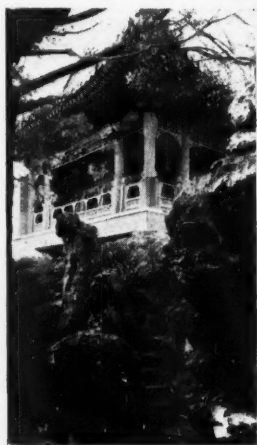
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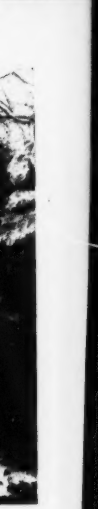
THREE SHILLINGS AND SIXPENCE



SHARAWAGGI COMES TO LIVERPOOL

Under modern building conditions the greatest scarcity of all is the vital commodity, time. Occasionally an architect conceives a building as a whole and gains the leisure to carry his ideas to their conclusion in a genuine piece of architecture; but the final stage whereby the same piece of architecture, by reacting upon its immediate environment, thereby begets a neighbourhood—there is not yet a better word—is not to-day considered as coming within the province of the designer at all. Yet without a successful issue of this last phase architecture remains a sort of academic exercise, divorced from the world it is designed to re-create. In the drawing above, however, in which the architect of Liverpool Cathedral shows his conception of the building's future surroundings, this step can be seen, as it were, actually being taken. The Cathedral is growing outwards into its immediate environment; is creating its own environment. In the architect's mind the building is seen as the stone flung into the pond, with expanding ripples of influence—a little understood conception which directly reverses the orthodox town-planning approach. It is the artist's as opposed to the doctrinaire's approach to the visual scene, and one which architects, whatever their age, design theories, or architectural background, might well combine to popularize before urban landscape becomes simply a matter of the siting of traffic arteries. Not everyone sees eye-to-eye with Sir Giles Scott over neo-Gothic or architectural detail, but that need not obscure the fact that here, on this Liverpool hill, Sir Giles is creating from the Cathedral outwards a piece of urban scenery of a subtle, authentic kind. Even though there are no obvious axes and the houses, the street, etc., seem to approach the Cathedral accidentally the result is more essentially architectural than the trivial but enormous opening up of vistas which is all that orthodox town-planners seem capable of producing when they are called upon to give visual evidence of the results of their recommendations. The approach to planning illustrated here is in keeping with the great architectural landscape tradition which goes back, via the English eighteenth century, to the sort of Chinese art illustrated on the right. That the foils to the temple are rocks where Sir Giles's are houses, roofs, chimneys, and an oblique street, merely emphasizes the fact that both rocks and houses are designed as scenery. Compare this approach, in which the Cathedral is deliberately *built against* and thus obscured (not on all sides though, for in real life each compass-point produces totally dissimilar views—a very important point in a building as large as this), with, for instance, the symmetrical *place* into which St. Paul's is trimmed in the new City plan (good as that plan is). In the new plan for St. Paul's, the drama of the contrast between the buses roaring under the south cliff and the intimate close-like character of the north is sacrificed to the very questionable advantage of "air all round"—and identical views all round. The argument that one Cathedral is "Gothic" and the other "Baroque" is not really of much weight, since both settings are romantic. To the true Londoner much of the abiding power of attraction of St. Paul's lies in the contrast between its Johnsonian person and its coffee-house background.





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The United Society of Believers in Christ's Second Appearing, commonly known as the Shakers (from their dancing and jumping at meetings) was one of many Revivalist religious sects in the United States which experienced its hey-day during the first half of the nineteenth century. The Shakers, however, were particularly remarkable for the economic and æsthetic success which resulted from their beliefs and methods of community organization. In the growing and marketing of seeds, the manufacture of brooms, brushes and chairs, in the weaving of linen and the knitting of underwear, they advanced industrial development. They first introduced the dehydration of fruit and corn; among their inventions are claimed the screw propeller, the revolving harrow, the circular saw and the clothes peg. As the result of their maxims and specific restrictions against elaboration in the Millennial Laws, their furniture and houses were uncompromisingly functional, and prove extremely satisfactory to the twentieth century eye. The lessons which it is possible to draw from their success in solving problems which beset us to-day are numberless. What it is important to remember, though, is the fact that central to their every activity, however small and apparently meaningless, was their religion. Although it may be inviting, it is quite useless to consider only those aspects of their activities which may appeal to us to-day. Those aspects are part of a whole—the outcome of a strict code of behaviour which reflects itself in all their life and work. Their work remains for us to study in many collections in America and notably in the New York State Museum. It is also excellently recorded by the Index of American Design, National Gallery of Art, Washington, to which we are indebted for all the accompanying illustrations.

'HANDS TO WORK AND HEARTS TO GOD'

by J. L. Martin

TO separate one's own kind from the alien—the chosen from the damned—is one of the most common and consistently recurring human attitudes. What we regard as great nations, races and religious sects throughout the world's history have made this separation and its tacit assumption of superiority. So, too, have the pygmies.* And it is not until we are sure that we are free from this attitude ourselves that we can afford to smile at the Shakers (that self-contained and complete religious sect) who made such a clear and defined separation between themselves, "the believers," and others "the world's people" or "Adam's kind."

Their official name was "The United Society of Believers in Christ's Second Appearing." In origin they branched out from English Quakerism, their founders, James and Ann Wardley of Manchester, being influenced by the French Prophets (the Camisards).† But their spiritual leader was the Wardley's successor, Ann Lee (1736-84), the daughter of a blacksmith and also of Manchester, where she was imprisoned for "breaking the Sabbath by dancing and shouting and for blasphemy." In 1770 she appears to have been given the title of "Mother," calling herself "Ann, the Word." Four years later, after a "revelation," Mother Ann left England for America, together with her husband, her brother William Lee, Nancy Lee (a niece), James Whittaker, John Hocknell and his son Richard, James Shepherd and Mary Partington. They arrived in New York on August 6, 1774. In the spring of 1776 they were established at Niskayuna (now Watervliet, near Albany) on land bought by John Hocknell (the only one of the group with any means). By 1786 a meeting-house had been built by co-operative effort in the neighbouring town of New Lebanon and a year later it became the centre of the first Shaker community and the headquarters of the sect. It was here that James Whittaker (on Mother Ann Lee's death) remained head of the order for three

years, to be succeeded by the American converts, John Meacham and Lucy Wright. John Meacham (1742-96) was also the spiritual successor of Mother Ann in his gift of divine revelation—indeed, the period of spiritual manifestations remained with the Shakers until 1847. With Lucy Wright (1760-1821), who on his death guided the sect for twenty-five years, he worked out the Shaker organization. It was in New Lebanon under the leadership of these two Americans that the creed and conduct of the Shakers received its shape and found its expression in the "Millennial Laws."

The beliefs of the Shakers were clearly defined: their theology rested on a bi-sexual Godhead which would be manifest in both male and female forms—hence the equality of sexes within Shaker Communities. Although marriage was not forbidden, the Shakers believed the celibate state to be desirable. The Millennium, they thought, had begun in 1774, and the end of the world was to be brought about by the adoption of celibacy on all sides. Their lives were strict and simple, but at their meetings they gave complete freedom to their physical and spiritual emotions. In this jumping and dancing as they wrestled with their souls (and from which they received their name), they resembled many other sects—for instance, the *Encyclopædia Britannica* mentions the dancers of the Low Countries in the fourteenth century, the French Convulsionnaires, the Welsh Methodist Jumpers and in our own day there are several American groups. Like others, too, they had trances and visions.

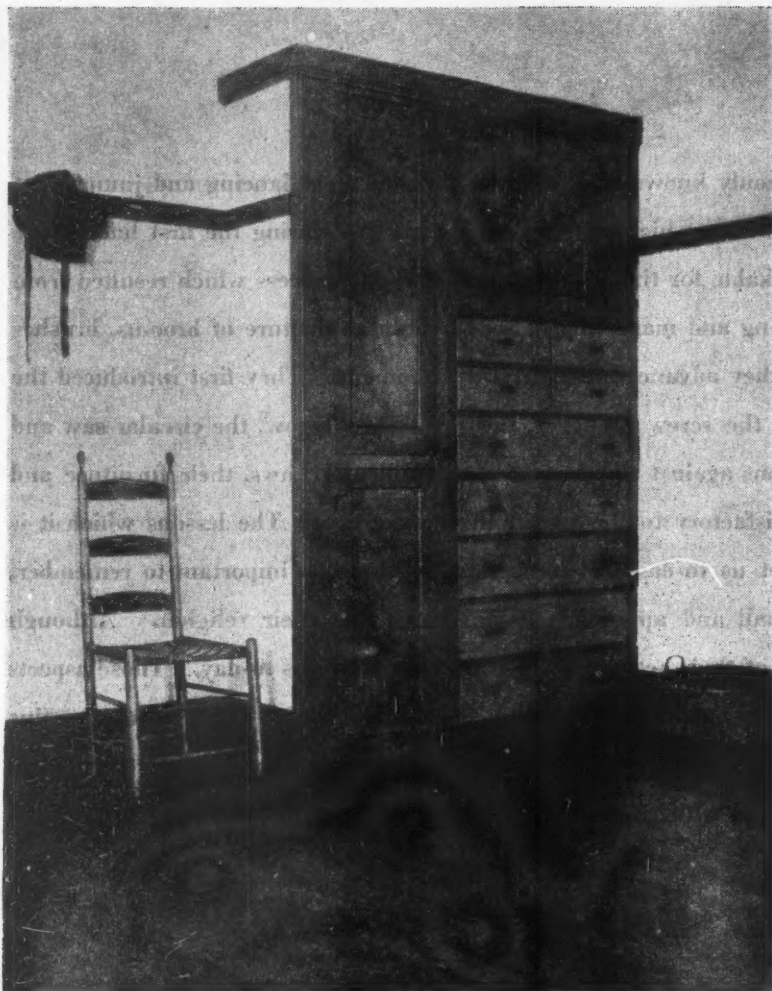
A temporary member has left a record of these scenes:—

... "On the dancing days . . . the brothers formed a rank on the right, the sisters on the left, facing each other about five feet apart. After all were in their proper places the chief Elder stepped into the centre of the space, and gave an exhortation for about five minutes, concluding with the invitation to them all to 'go forth, old men, young men and maidens, and worship God with all your might in the dance.' Accordingly they went forth, the men stripping off their coats and remaining in their shirt-sleeves. First they formed a procession and marched around the room at double-quick time, while four brothers and sisters stood in the centre singing for them. After marching in this manner until they got a little warm they commenced dancing, and continued until they were all pretty well tired."

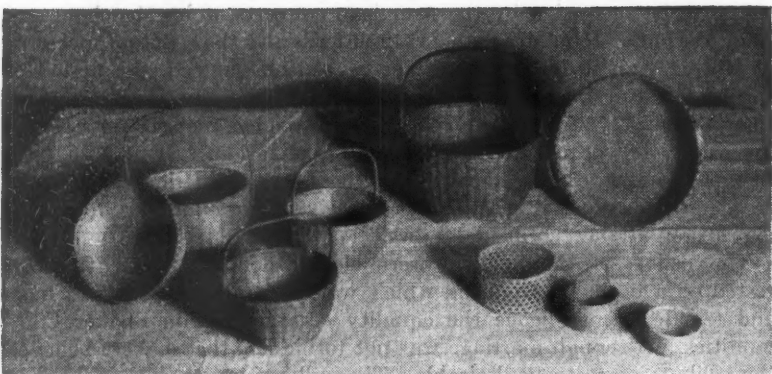
During the dances, which have been described as intricate and beautiful, not a word was spoken until, at a sign from the Elder, all waited to see if anyone had received a "gift."

* See *Patterns of Culture*, Margaret Mead, p. 7.

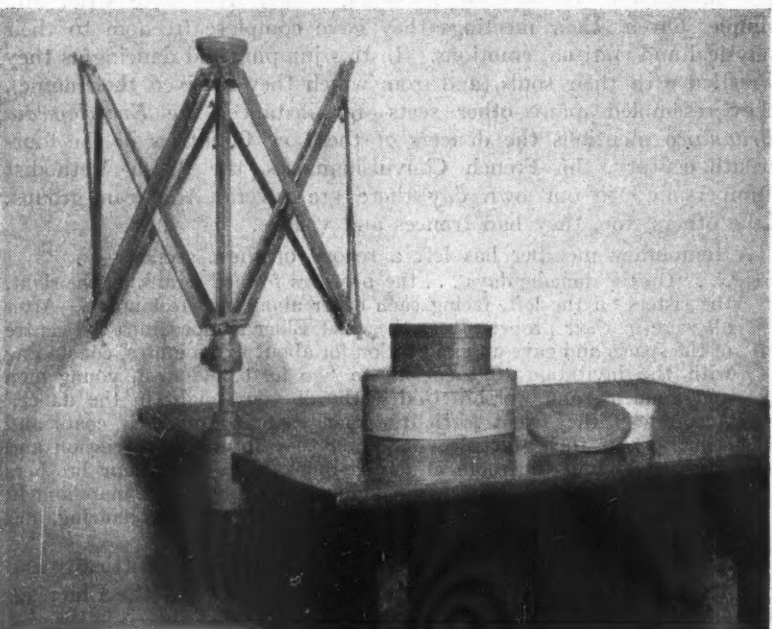
† The influence from this movement amongst the French peasantry of the Cevennes seems to have been particularly the belief in divine revelation and prophecy. Four important works on the Camisard prophets were published in London in 1707 and about this date three of the prophets themselves were in London. A protest to the Lord Mayor of London from the Consistory of the French Church of the Savoy resulted in a trial in which one of the prophets (Marion) and his two secretaries were condemned to the pillory. In other respects, however, particularly in the pacifism of the later Shakers, there is a marked contrast to the French sect who, from 1702 to 1705, waged an active and at times brilliantly successful military resistance to the consistent cruelty which accompanied all attempts to change their faith.



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1, a built-in fitting from Hancock, Mass. The peg board on the wall can take hats, clothes and—during cleaning periods—even chairs. 2, Shaker baskets. The Shaker skill in basket work was founded on knowledge of the craft gained from itinerant Indians. 3, Shaker spindle and sewing boxes in possession of Dr. E. D. Andrews, Pittsfield, Mass. The spindle or "table swift" is a typical labour-saving invention. It is designed for winding yarn from a skein into a ball. The oval boxes are examples of the beauty and care of Shaker workmanship; the rims are in maple, the tops and bottoms being in pine. The "lappers" which join the sides are fastened with copper rivets. 4, a Shaker writing table and chair from the Shaker village, Hancock, Massachusetts.

"Then two of the sisters would commence whirling around like a top, with their eyes shut. . . . On some occasions, when a sister had stopped her whirling she would say, 'I have a communication to make,' when the head Eldress would step to her side and receive the communication, and then make known the nature of it to the community. The first message I heard was as follows: 'Mother Ann has sent two angels to inform us that a tribe of Indians has been round here two days, and wants the brothers and sisters to take them in. . . . The next dancing night . . . the Elder urged upon the members the duty of 'taking them in,' whereupon eight or nine sisters became possessed of the spirits of Indian squaws, and about six of the brethren became Indians. Then ensued a regular powwow, with whooping and yelling and strange antics. . . . The sisters and brothers squatted down on the floor together, Indian fashion, and the Elders and Eldresses endeavoured to keep them asunder, telling the men they must be separated from the squaws, and otherwise instructing them in the rules of Shakerism. . . . These performances continued till about ten o'clock; then the chief Elder requested the Indians to go away, telling them they would find someone waiting to conduct them to the Shakers in the heavenly world. At this announcement the possessed men and women became themselves again, and all retired to rest. . . ."

It is difficult to avoid noticing, in the report from which this quotation is taken, the implied criticism which these performances so often received and to which they so readily lend themselves. Side by side with this, however, must be placed all other aspects of Shaker life and work: there are, for instance, the economic organization of their communities and the splendid invention and craftsmanship which distinguish all their productions. There are, indeed, few communities which have achieved such an economic success from their Christian communism. Holding all things in common, they owned nothing individually. They themselves must be pure and redeemed from worldliness; so too must their work. To achieve this they isolated themselves from the world and built up their separate communities.

These communities consisted of families (a social fact which affected the planning of their houses). In New Lebanon, for instance, there were seven of these "families." The "families" were groups of believers and were varied in size: they were frequently associated with a particular product (e.g., the brush family, etc.). Spiritual leaders like those already mentioned and either male or female were elected to guide the order: the Elders and Eldresses presided over each family. Trustees, Deaconesses, or Caretakers looked after the Shaker economic interests and transacted business with the outside world. Their communities grew and developed in many states until they numbered twenty-seven, with a membership of over 5,000. Each separate Shaker village took its pattern from the early type. The Shaker communities adopted children in large numbers, and educated and trained them in the Shaker faith, hoping thereby to swell the Shaker population. No pressure, however, was put upon these children to remain in the fold if they did not feel a vocation, and, in fact, most of them subsequently left, and went out into the world, and the "families" were recruited by adult converts year after year. In 1908 there were still fifteen of these settlements in existence, though within a few years most of them came to an end, and only a very few aged members remained.

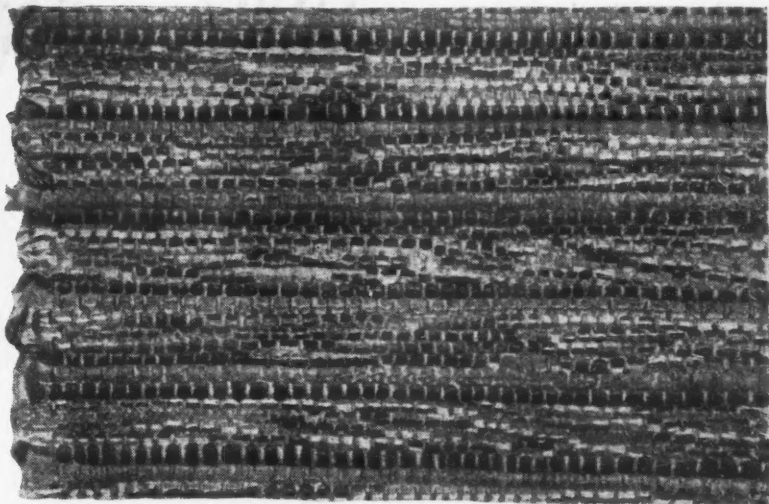
* Quoted in *Religious Fanaticism*: Ray Strachey, Faber and Gwyer, 1928.

Though many of the Shaker products, such as furniture, were made for their own use, the Shakers sold goods to the world outside. Dickens, who disliked the Shakers for their "stiff-necked piety . . . which would strip life of its healthful graces, rob youth of its innocent pleasures and pluck from maturity and age their pleasant ornaments,"* had to admit that they were good farmers, that their products were eagerly purchased and highly esteemed and that in all their transactions they were honest and just. Their principal activities were the growing and marketing of seeds (a Shaker *Gardeners' Manual* was published in 1836) and of herbs and roots. They also manufactured brooms, brushes and chairs, wove linen and knitted underwear. Their economic policy in these matters was so advanced that they originated industrial development in many directions. They were the first, for example, to place gardening and farming on an industrial level. They were the first to introduce the dehydration of fruit and corn. They developed mass production. They were the inventors of numerous labour-saving devices and typical industrial machinery. Amongst their inventions, to take only a small sample, are the screw propeller, the revolving harrow, the circular saw, a tongue and grooving machine, machines for filling seed-bags, an apple quarterer, a pea-sheller, and the clothes peg. To this list has to be added their development of architecture, building, furniture and weaving, and the practical arts.

There is no doubt that the impetus to all this development rested in the creeds and beliefs of the Shakers themselves.† It is only necessary to examine one or two of these to see what a profound influence a simple belief can have if accepted literally and translated into terms of every-day life. Take, for instance, such a favourite injunction as "You must not lose one moment of your time for you have none to spare!" This in itself gives the impetus to the Shaker inventiveness in all labour and time-saving devices. The apple coring machine, the pea-sheller and the wool-winder are the direct outcome of this precept. So, too, is the great circular barn at Hancock, Massachusetts (1826) where the hay, once stacked in the barn, acts by its own gravity as a continuous feeder to the cattle ranged around it below. The striking neatness of the Shaker interior with its built-in cupboards and a drawer for everything (as many as eight hundred and sixty drawers have been built into a simple family dwelling), the use of tool cupboards, wood stacking cupboards, a different basket for every purpose, etc., are clearly the outcome of their belief that "order is Heaven's first law and the protection of souls." Also "there is no dirt in Heaven"; movable furniture must be light (if necessary capable, like Shaker

chairs, of being hung on pegs on the walls) so that floors can be easily cleaned and swept, dust and dirt must be eliminated by design. Many Shaker products reflect several of these considerations. There is, for example, the cobbler's bench in which chair, worktable and cupboard are designed as a single and convenient fitting—time saving, neatness and order combined in one design.

Sometimes the Shaker principles are directly expressed as instructions to the Believers. There are, for example, in the Millennial Laws, specific



5, this rug strip made in the Shaker Colony at New Lebanon in the middle of the nineteenth century will at once recall the interest and texture of the hand-loom weaving of, for instance, Ethel Mairet in our own day. The materials are cotton and wool.

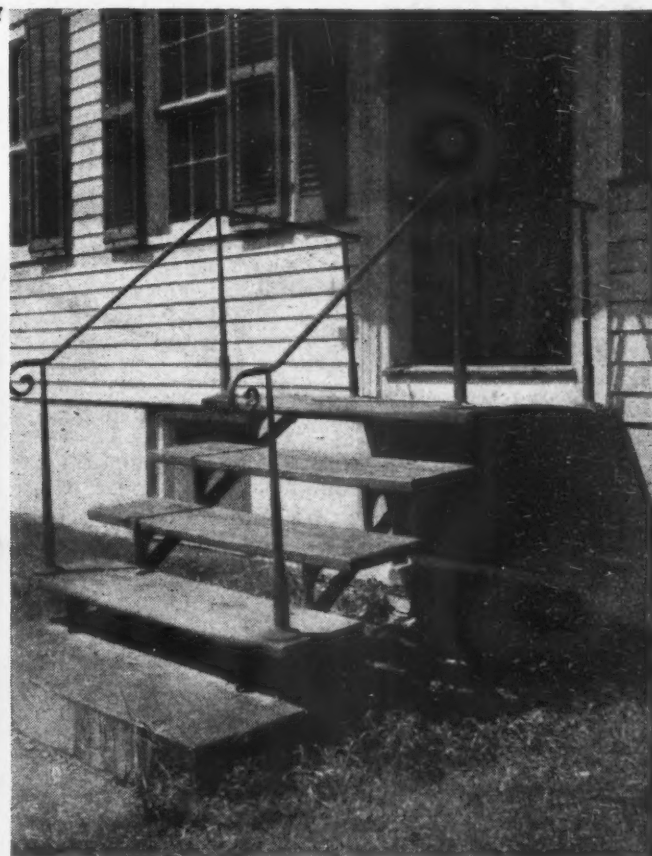
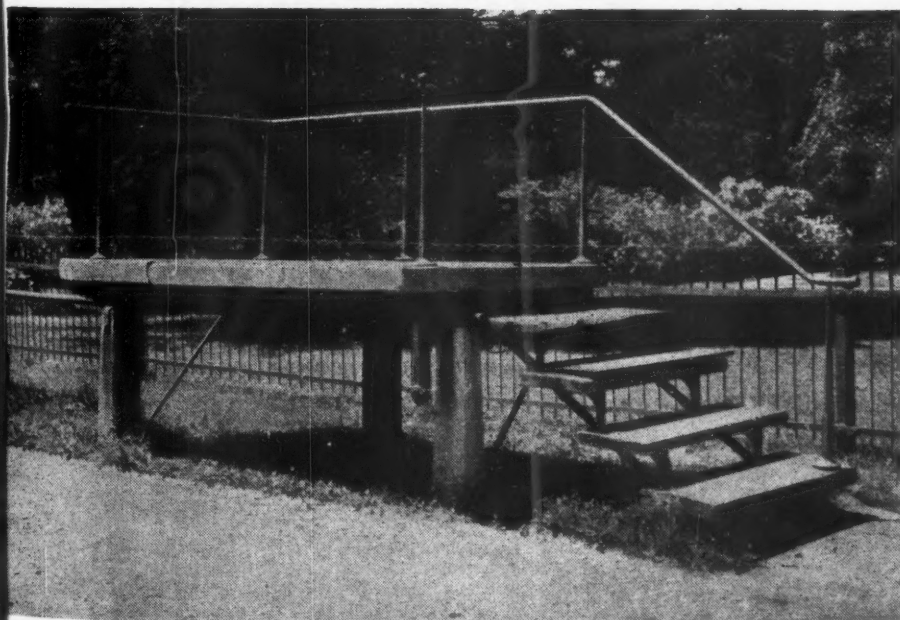
restrictions against elaboration. Most of these spring from the Shaker belief in simplicity in all things. In the interiors of their rooms, for instance, they deliberately avoid the use of mouldings. In their furniture, they expose the accuracy and beauty of their workmanship in jointing and dovetailing; the flawless nature of the timber itself can be seen through the clear stains of blue, red or yellow.

From the point of view of aesthetics, one of the things that will interest us most in all this is the relation between the beliefs of a community and the appearance of its products—in fact, between a man's life and his work. For the Shakers held very strongly the view that a man's work must be a reflection of his life. They believed that it is not enough to achieve a purity of spirit; or rather, that there is no purity of spirit unless the products of men's hands are equally pure.

* See Charles Dickens' *American Notes*, p. 126 et seq., (quoted in part on page 69).

† A fact which has been ably demonstrated in the very interesting symposium on Shaker work published in *House and Garden*, March, 1945.

6, a carriage landing in stone, wrought iron and timber from the Shaker village, New Lebanon.
7, steps and wrought iron handrail at the entrance to the Administration Building, New Lebanon.



In other words, to make good objects you need good men, which, if I am not mistaken, is also a remark made by Mr. Lewis Mumford during his recent visit to this country.

I will leave aside the particular definitions which such statements require. What I am anxious to touch upon is the more general thesis underlying these views, for they are views which have recurred consistently in one way or another in recent years. Here they are, for example, illustrated by sentences from William Morris's essay *Art and Socialism* :—

It is right and necessary that all men should have work to do.

Nothing should be made by man's labour that is not worth making.

No wonder our houses are cramped and ignoble when the lives lived in them are cramped and ignoble also.

The close parallel between this and Shaker thought will at once be noticed. There are, of course, major differences of accent, but the common ground implied in these statements by the Shakers, Mr. Morris and Mr. Mumford rests in the belief that there is behind all human activities a certain correspondence; that the principles of ethics, for example, may be reflected in æsthetics, or economics. To the Shakers belongs the credit of leaving for posterity the clearest practical demonstration of these interweaving patterns. They are patterns more complete and thorough than are likely to be achieved in larger and more complex groupings of society. But the remarkable thing is that so much of those patterns should still remain of interest and value in the present day.

That this should be so in the field of economics or production is not surprising. I have already said that the Shakers, in their use of machines, in time saving and in rationalization, are the instigators of many types of industrial progress which are common today. It is some indication of similarities in the field of æsthetics that I can use in relation to the qualities of their work such words as *impersonality*,



8, staircase balustrade and handrail in the dormitory of the Shaker Colony, Hancock.

flawlessness, precision, simplicity and economy, which are, in fact, Mr. Herbert Read's words for the characteristic values of the products of our machine age.

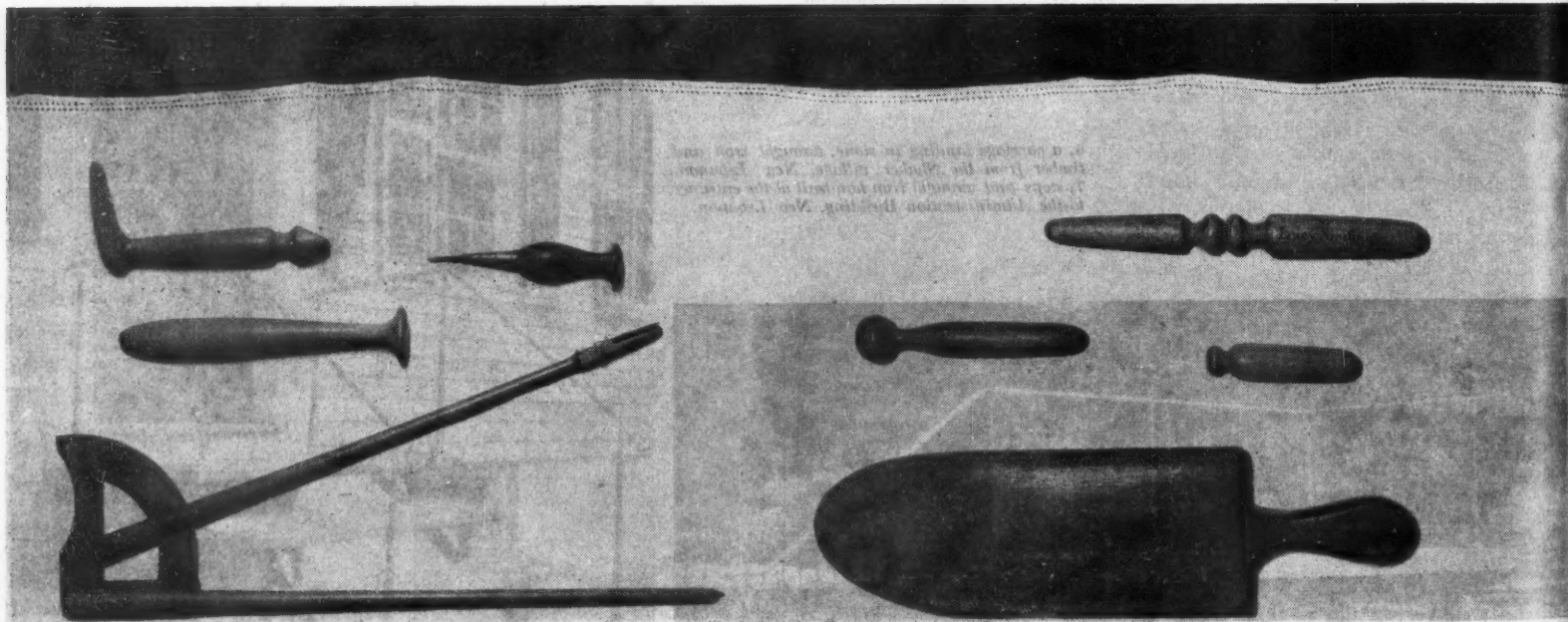
The point of the similarity is, of course, that like the Shakers we have in many fields of activity broken away from accepted values and substituted new ones. Mr. Herbert Read brings us to the root of the comparison when he says :—

"The emphasis we give to the personal as against the impersonal, to the individual as against the absolute, does imply, and has always implied a change of values. Any general acceptance of machine art would involve just such a change of

values. It would imply, to be exact, a revision and perhaps a reversal of the prevailing humanist values characteristic of our civilization since the Renaissance. . . . But the impersonal values which we find characteristic of machine art would stand little chance of establishment did they not correspond with a wider shift of values in society. In every sphere of human activity, even in religion, the values of individualism are challenged. This is especially true of the economic sphere where, largely as a result of the passage from handcraft to machine production, new conceptions of society have become prevalent and indeed have taken visible shape."*

Dickens' reaction against the Shakers is fundamentally a reaction against a different set of values and a similar reaction is likely to take place to parallel changes at the present time. It is, therefore, of some interest to have the evidence of the Shakers before us. What is abundantly clear is that, in a community faced with many of the same problems that face us today, a commonly held belief in a certain set of values, could stimulate a remarkable originality and inventiveness, in which human labour achieved some dignity and human productions arrived at a remarkable unity of character, quality and form.

* *The Practice of Design.* Introductory Essay by Herbert Read.



9, Shaker tools. The Shakers invented many special tools which are as meticulous in their design and finish as every other Shaker product.

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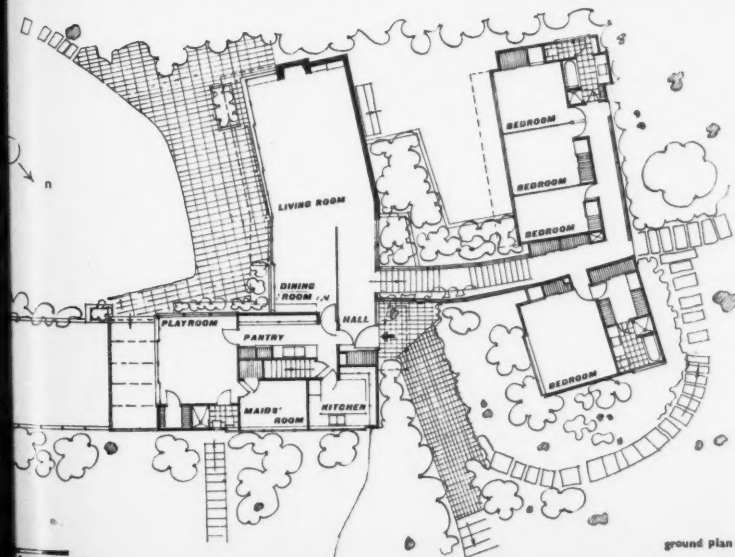
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1, the entrance to the house. Several alternative designs were made by Serge Chermayeff, before this, particularly successful, solution was finally decided upon. The sloping wall to the right screens the staircase leading to the bedrooms on the upper level.



TWO HOUSES IN CALIFORNIA



HOUSE AT PIEDMONT. CLARENCE MAYHEW AND SERGE OHERMAYEFF: ASSOCIATE ARCHITECTS. SERGE OHERMAYEFF: DESIGNER

In the design of this house the prospective architect-occupier, Clarence Mayhew, invited Serge Chermayeff to collaborate with him. The site, formerly part of the garden of a large estate, is 90 feet wide by 225 feet long, steeply sloping to the southeast, with a view to distant hills. After more than a dozen different sketch layouts had been prepared, a solution was agreed whereby the areas for sleeping, living and car storage were divided into three separate units, located in descending order down the natural slope, and connected by two enclosed staircases. Thus all important rooms have a view and open directly on to the garden. Privacy from the street to the east is gained for the adult living terrace by a service wing, and





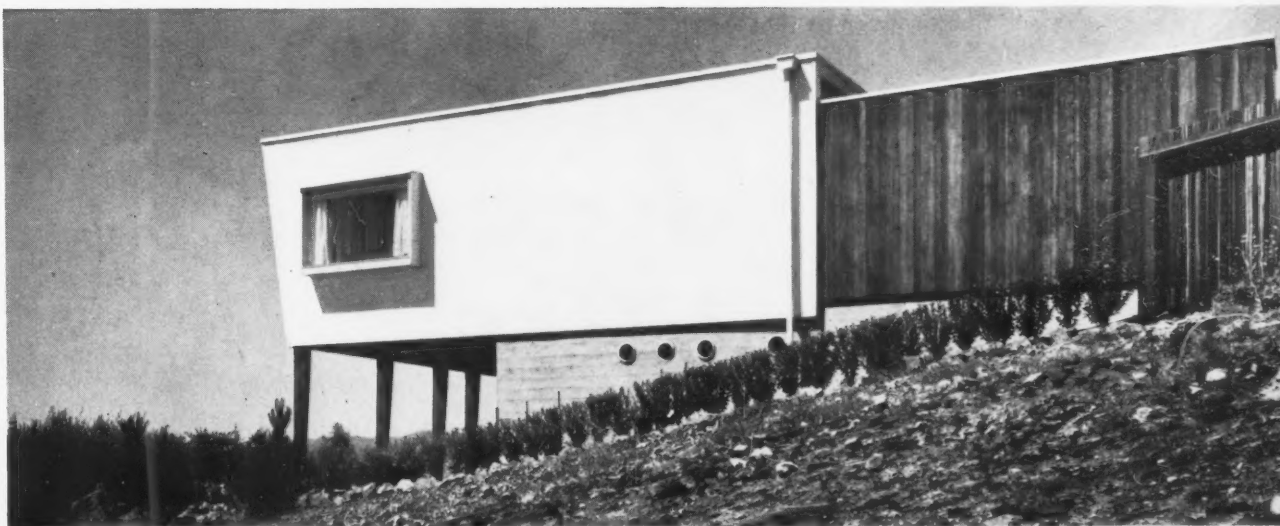
2, on the facing page, the lower level terrace outside the living room; the playroom with its separate terrace is beyond. 3, on the facing page, the living room from the dining alcove; the ceiling is continued through the glass wall, to overhang part of the terrace. 4, the bedroom terrace, with the staircase beyond, which joins the living and sleeping parts of the house. 5, the staircase from inside, showing the indoor garden. 6, the glass wall of the living room, continued, without interruption, round the near corner.

HOUSE AT PIEDMONT



for the children's play terrace, by the upper staircase. By placing the service and car entrances on the lowest level full advantage could be taken of the romantic approach to the front-door. One of the requirements of the owner was that the house should be built of wood in the manner characteristic of the region. Multiple elements have been avoided where they were not actually needed for structural reasons. Few sub-contracts were let, most of the work being done by directly hired labour with directly purchased materials. Foundations are of cast concrete, designed to allow overhang where possible, thus facilitating the provision of ant-traps, universally required in California. Floors are of three-quarter inch sub-flooring, covered by quarter inch plywood, finished with asphalt tiles. Walls are of two by fours, faced on the outside by one inch unpainted redwood planking over felt, and on the inside with quarter inch plywood or plaster board. Ceilings are of fibre-board, and no other insulation is provided in roofs and walls. Heating is by forced hot air from two separate units on the sleeping and living levels.

1, the southern façade of the house, with the window framing the distant view of San Francisco. 2 is the same view of the house, taken from some distance away during construction. It shows how skilfully the architects have excluded the larger landscape of scrub, storage tanks and electric cables, creating a small "ideal" landscape within it.



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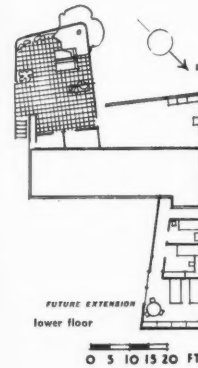
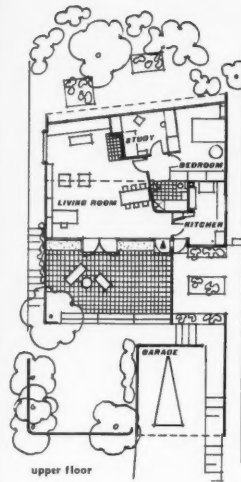


HOUSE AT REDWOOD. ERNEST BORN: ARCHITECT. SERGE CHERMAYEFF: DESIGNER. GARRET EOKBO: LANDSCAPE ARCHITECT

This house was designed for the Professor of History at California University and his wife, who is an architect. The south-east corner of the living room is planned as an office for the professor with a study-bedroom as a drafting room for his wife. The size of the site, 50 by 90 feet, demanded the utmost economy of space, and the climate—raw winds and rain prevail in the stormy season—demanded shelter without sacrificing the superb view of the Golden Gate. The house is placed away from the road at the edge of a 60 foot cliff, and acts as a wind-break for the terrace on the approach side. The surrounding countryside, scattered with scrub and



3



3, the "cliff" side of the house, showing the windows of the living room and the study-bedroom; there is a workshop on the ground level. 4, a general view of the living room. 5, the sheltered outdoor-room on the approach side.

large aluminium storage tanks, has been skilfully screened to create a miniature "ideal" landscape around the house. The original design for both house and landscape had to be considerably modified, as the contract was signed a week after Pearl Harbour, and there was little labour left available for private building. Additional bedrooms and a bathroom will eventually occupy the present service yard, and there will be a sun-deck at ground level on the cliff side. Owing to the persistence of violent weather in the district, it was found that, with pressure and capillary attraction, rain penetrated double wood walls of siding and sheathing. This construction, therefore, is used only for inset panels on the sheltered east side, and exposed walls are stucco on expanded metal, painted.



GATEWAY TO THE HEDJAZ

By J. M. Richards



AMONG those hills lies Mecca. Of this the visitor never ceases to be conscious all the time he is in Jedda, not only when he happens to look across the desert to the line of rocky peaks, pale in the heat or glowing deeply pink at sundown, that terminates the view to the eastward, but as he goes about his daily business among the winding streets of the neatly walled town. Mecca is forty miles away, and the occidental visitor will never see it—no one who is not a Moslem is allowed there, and even the pilots of the air services that now link the Arabian peninsula with the outside world are forbidden to fly so near as to bring its towers and minarets within view—yet he is always aware that towards a point hidden in those hills more than two hundred million Moslems turn their faces several times a day.

Mecca has kept—and even increased—its prestige since Ibn Sa'ud and his Wahhabis took over the administration of the Holy Cities in 1926, and in western eyes it means much that it has preserved its inaccessibility in a world where few secret places are left. Even the fact that, from Jedda, one can now talk to Mecca on the telephone has, in an odd way, instead of destroying the illusion of remoteness somehow increased it. The voice that comes over the wire seems to speak with oracular authority.

In Jedda, the awareness of Mecca is not only a matter of religious prestige and the romantic attraction of a forbidden city nearby. The whole life of Jedda is shared with that of Mecca, for whom it is the meeting-ground with the outside world. It also serves as a kind of sieve, which admits all but lets only some pass through. Jedda is the only town in Saudi Arabia in which Europeans are allowed to live, and there is a continual coming and going between it and Mecca, especially during the pilgrimage season and on the part of Court and Government officials, which gives Jedda an atmosphere like that of the town house of a family whose heart is in the country—the servants are its only real inhabitants and you cannot get to know the owners intimately if you only meet them there.

Jedda, however, is at the same time a thriving mercantile town in its own right; for centuries it has been the principal port of the Arabian peninsula. Its great days were those of the India trade, for as a way of increasing the revenue of the country, the rulers of the Hedjaz—Egyptian and Turkish sultans—used to compel ships bringing goods from the Indies to Suez to put in at Jedda and trans-ship their cargoes—or at least to pay dues before they were allowed to proceed. Niebuhr, the Danish traveller who visited the port in the middle of the eighteenth century, tells a story of the master of a vessel from Surat in India who "being driven too far north to enter the harbour of Jidda, proceeded to Suez and there discharged his cargo. But when he called at Jidda the following year, he was put into prison and obliged to pay the full dues that would have been charged at Jidda upon the goods which he had disposed of at Suez." Moreover, when Syria was conquered by the Franks, the old trade route across

the Sinai peninsula was interrupted and goods bound for Egypt were diverted to the Red Sea ports—especially Jedda—whence they crossed the sea and were taken by camel to the Nile.

The traditional merchandise of the Indies—the spices, silk and cotton cloths, rice and timber—have long ago taken other routes or passed into the control of powers not interested in maintaining the position of the Hedjaz on the main line of trans-continental trade, but Jedda remains a flourishing port, the depot for hundreds of coastal vessels trading up and down the Red Sea from Suez in the north to Aden in the south, and across it to Port Sudan and Massawa, bringing almost all the necessities of life to Jedda itself and the Holy Cities, and the desert dwellers of the Hedjaz and western Nejd.

Jedda, nevertheless, still preserves evidence of its old position on the India trade-route. There is virtually no timber in the whole of the Hedjaz, and the timber superstructure of Jedda's towering houses—mostly teak—came from as far away as the East Indies. The elaborate carving, moreover, with which porches and balconies, and the characteristically Arab *mushrabiyah* windows, are ornamented is said to be done by Javanese craftsmen, descendants of craftsmen who came, perhaps centuries ago, from the East Indies. Jedda, as befits a trading port, has a markedly cosmopolitan population, which includes many Indians and Javanese, a proportion of whom have stayed behind after coming to make the Pilgrimage, for Java is a Moslem country—numerically the biggest outside the Arab world.

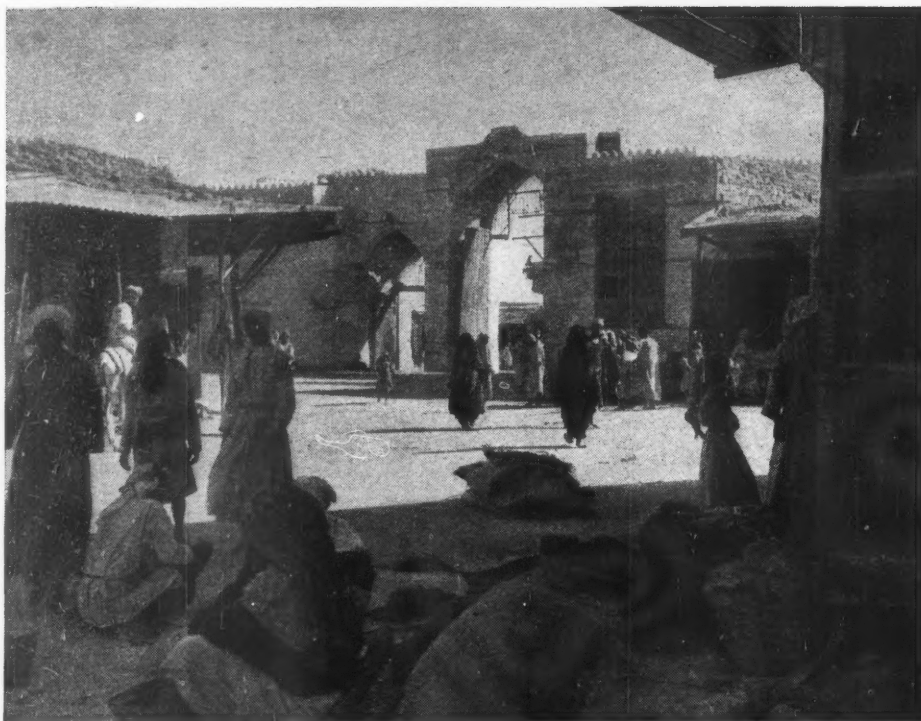
The town of Jedda is washed on one side by the Red Sea—or, rather, by the lagoon separated from the Red Sea proper by the coral reef that runs parallel with the Arabian shore, sometimes only a few hundred yards, sometimes several miles, out. Its other three sides are defined by its walls, for it is a walled town that has hardly been allowed to spread outside them, and this is what gives it its clean-cut architectural character. The town, approached across the flat sandy coastal plain, is seen standing up in a compact mass, neatly confined within its walls, from the foot of which the plain extends unbroken. Only in one direction, north-east of the town, has a small colony of houses been built outside the walls, though along the shore due north a few low buildings have been allowed to grow up round the airfield and the dock belonging to the gold-mining company that operates in the mountains.

The original walls were built in 1574 by the Egyptian sultan El Ghouri, to protect Jedda from the Portuguese who had by then become an aggressive power up and down the Red Sea. When Niebuhr paid his visit in 1762 they were standing, but largely in ruins. They were rebuilt early in the nineteenth century. The walls are still in fairly good condition, so that the only

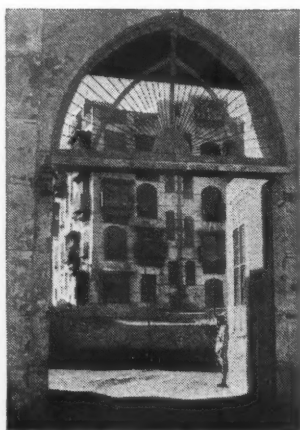
entrance to the town is by battlemented gateways, one on each side, and by a smaller pedestrians' gate on the north. The gates are guarded by sentries, and at dusk are closed and entry thereafter strictly controlled. Inside the walls the town is one of closely packed buildings, arranged on no regular plan; there are few streets of any length, the tall buildings giving the impression of having been stacked inside the town walls like flower-stalks into a vase. They are separated by narrow alleys that open out here and there into little squares. The only large open spaces are an oblong one behind the docks, containing such public buildings as quarantine and customs offices, and a wide roadway immediately within the walls on the north and north-east sides, separating them from the outer row of houses. There is no paving—since there is no durable stone. These open places and the courts and small squares are all floored with a fine sand, trodden hard, but with a dusty surface that glistens whitely in the sun. It makes Jedda a city of silent traffic; the rare wheels of carts grate dreamily as they pass, and the padding of bare feet is pleasantly muffled.

As a constant background to these unobjectionable sounds is the faint chug-chug of the condenser machinery. Jedda has no fresh water. Water can be obtained not far below the desert surface, but it is too brackish to be drinkable, and even the water that is sometimes brought in from wells in nearby oases makes Europeans ill, though the bedouin are used to it. Until a few years back Jedda relied on reservoirs which stored water brought down in channels from the hills to the east; now two condensers in the port area are continually at work—or as continually as the frequent breakdown of their somewhat primitive machinery allows—turning sea-water into drinking-water. This is distributed through the town in carts and carried to the upper floors of the tall houses in old petrol tins, much of the contents slopping over as the tins sway from the bearer's shoulder, but the full price being invariably asked for when he reaches the top.

The streets and squares are clean; in fact the cleanness of Jedda is one of the surprises in store for the visitor accustomed to the dirt and smells of other Middle Eastern cities. And except in the markets the streets on the whole are surprisingly empty; a few loitering soldiery, a hurrying messenger in huge bright-coloured turban; otherwise only the long-eared goats that wander through all the courts and corners. Except in the pilgrimage season; then for a short space Jedda is filled with an apparently endless white-robed crowd, jostling round the port area, setting



THE GATES OF JEDDA. The town is still completely contained within its walls, which are entered by two main gates and a smaller pedestrians' gate. The most important is the Mecca Gate, seen above from the inside. From it, the only metalled road in the neighbourhood leads eastwards to the Holy City forty miles away, and through it go the caravans of Moslems who arrive in Jedda by sea in their thousands once a year to make the pilgrimage to Mecca. Below: left, the Mecca Gate from the outside; centre, the northern town gate; right, the pedestrians' gate near the north-west corner of the walls. The gates are closed at sun-down and guarded thereafter by sentries.



off along the Mecca road in ancient overloaded buses and cars, luggage perilously piled on their roofs, or squatting patiently by the hour in front of various Government offices while the endless formalities inseparable from the congregation of many nationalities are complied with. Jedda, being the gateway to the Hedjaz, is the point of entry for all who make the pilgrimage by sea, which means all except the inhabitants of Saudi Arabia and Nejd and those who join the traditional caravan from the north which, starting at Damascus, winds its way down the trackless desert, along the time-honoured route that even the short-lived Hedjaz railway, built by the Turks, blown up by Lawrence and now half-buried in the drifting sand, has not been able to supersede. The arrivals by sea come in ships of all kinds: expensively chartered liners from India, steamers and sailing ships from Suez, the small, graceful dhows that ply along the Red Sea coast from the ports of the Yemen and the Aden Protectorate and even, by the unsheltered waters of the Indian Ocean, from Muscat and the Trucian sultanates.

Jedda's connection with the Moslem religion dates back to before the *Hejira* (Mahomet's flight from Mecca to Medina in the Christian year 622, from which the Moslem reckoning of years begins). For in A.D. 614, when Mahomet and his family were being persecuted by the Koreishites of Mecca,

his daughter and some of his leading disciples fled for refuge first to Jedda and then by sea to Abyssinia, where the Nestorian Christians treated them more tolerantly. Now the ninety or so souls that fled secretly from the port of Jedda return every year multiplied by thousands. It is an exuberant crowd, but a serious one, for the pilgrimage is in many cases the fruit of years of waiting and saving, and the hardships of the journey—wedged in primitive railway carriages and the holds of overcrowded steamers and ordered about by minor officials at every frontier and quarantine station—make the pilgrimage (for all but the Maharajah and the rich Egyptian pasha) something far removed from a picnic. Under the present Saudi regime, however, pilgrims are not exploited in the way they were, for example, a century ago, when Mohammed Ali made them pay a standard price of eighteen dollars a head for the passage from Suez to Jedda, himself only paying six dollars to the masters of the ill-found vessels in which they were so closely packed, and on top of that only allowed them to take with them a bare minimum of provisions. Anything more they had to buy at Mecca at exorbitant prices. The journey today is trying enough, but when the pilgrims set foot on the sacred soil of the Hedjaz, they can regard their troubles as over.

Being the only Arabian town, on account of its

trade connections, open to foreigners, Jedda was visited by nearly all the European travellers who penetrated Arabia from the earliest times, and those accounts of Arabian journeys that constitute so rich and romantic a province of English literature contain many descriptions of Jedda. These are often charged with the intense emotions that the circumstances of their arrival in Jedda aroused in their authors. To Doughty, for instance, it was the refuge he safely reached after the long-drawn-out perils of his journey to Mecca in disguise. "Be no more afraid, for here all peril is past," whispered a coffee-house keeper who recognized him as a foreigner, when he and his companions made their last halt on the road from Mecca. And the closing passages of *Arabia Deserta* describe his arrival in Jedda: "when the sun was going down from the mid-afternoon height, we set forward: 'Rejoice, Khalil,' quoth my rafiks, 'for from the next brow we will show thee Jidda.'—I beheld the white sea gleaming far under the sun, and tall ships riding, and minarets of the town! My company looked that I should make jubilee—In this plain I saw the last worsted booths of the Ishmaelites." To T. E. Lawrence, on the other hand, the view of Jedda from the sea was his first sight of Arabia and the fulfilment of an earnest ambition, as well as marking the start of that enterprise, compounded of skirmish and intrigue, which made him famous. "At last we anchored," he writes in *The Seven Pillars of Wisdom*, "in the outer harbour, off the white town hung between the blazing sky and its reflection in the mirage which swept and rolled over the wide lagoon, then the heat of Arabia came out like a drawn sword and struck us speechless. It was midday; and the noon sun in the East, like moonlight, put to sleep the colours. There were only lights and shadows, the white houses and black gaps of streets: in front, the pallid lustre of the haze shimmering upon the inner harbour: behind, the dazzle of league after league of featureless sand, running up to an edge of low hills, faintly suggested in the far away mist of heat."

The most detailed description of Jedda, however, is that of Burckhardt, who arrived there from across the Red Sea in July, 1814. In the guise of an Arab doctor of the law, he visited and examined the cities of the Hedjaz and returned to publish, in his *Travels in Arabia*, the first factual account of a country about which Europeans had romanced and speculated for centuries. "The town is built," his description of Jedda begins, "upon a slightly rising ground, the lowest side of which is washed by the sea. Along the shore it extends in its greatest length for about fifteen hundred paces, while the breadth is no more than half that space. It is surrounded on the land-side by a wall, in a tolerable state of repair, but of no strength. At every interval of forty or fifty paces, the wall is strengthened by watch-towers, with a few rusty guns. A narrow ditch was also carried along its whole extent, to increase the means of defence; and thus Djidda enjoys, in Arabia, the reputation of being an impregnable fortress. On the sea-shore, in front of the town, the ancient wall remains, but in a state of decay. At the northern extremity, near the spot where the new wall is washed by the sea, stands the Governor's residence; and at the southern extremity is a small castle, mounting eight or ten guns. The approach into the town from the sea is by two quays, where small boats discharge the cargoes of the large ships, these being obliged to anchor in the roadstead, about two miles from shore. The quays are shut every evening about sun-set; thus all communication is prevented, at night, between the town and the shipping. . . . The most respectable inhabitants have their quarters near the sea, where a long street, running parallel to the shore, appears lined with shops, and affords many khans constantly and exclusively frequented by the merchant. Djidda is well built; indeed, better than any Turkish town of equal size that I had hitherto seen. The streets are unpaved, but spacious and airy; the houses high, constructed wholly of stone, brought for the greater part from the sea-shore, and consisting of madrepores and other marine fossils. Almost every house has two stories, with many small

Jedda from the north, showing the town close-packed within its encircling wall. In the centre is the northern gate (see facing page). The two trees in the foreground are the only ones to be seen outside the town, though inside, a few small ones are carefully fostered in shady courtyards and corners. Otherwise the flat desert stretches unbroken from the foot of the town walls.



Inside the town, with its characteristic cubic, flat-roofed, balconied houses, irregularly planned and separated by narrow alleys linking small shady squares. The photograph is taken from the roof of one of these houses; in the foreground is a mosque with its enclosed courtyard and minaret.





On the west Jeddah's town-walls are washed by the sea—or, rather, by the sheltered lagoon cut off by coral reefs from the Red Sea proper. Left, the roadway immediately within the wall, above which a glimpse of the lagoon can be seen. Centre, colour-washed, balconied houses face each other across a tree-planted courtyard. Right, the entrance to the market, with the principal mosque beyond.



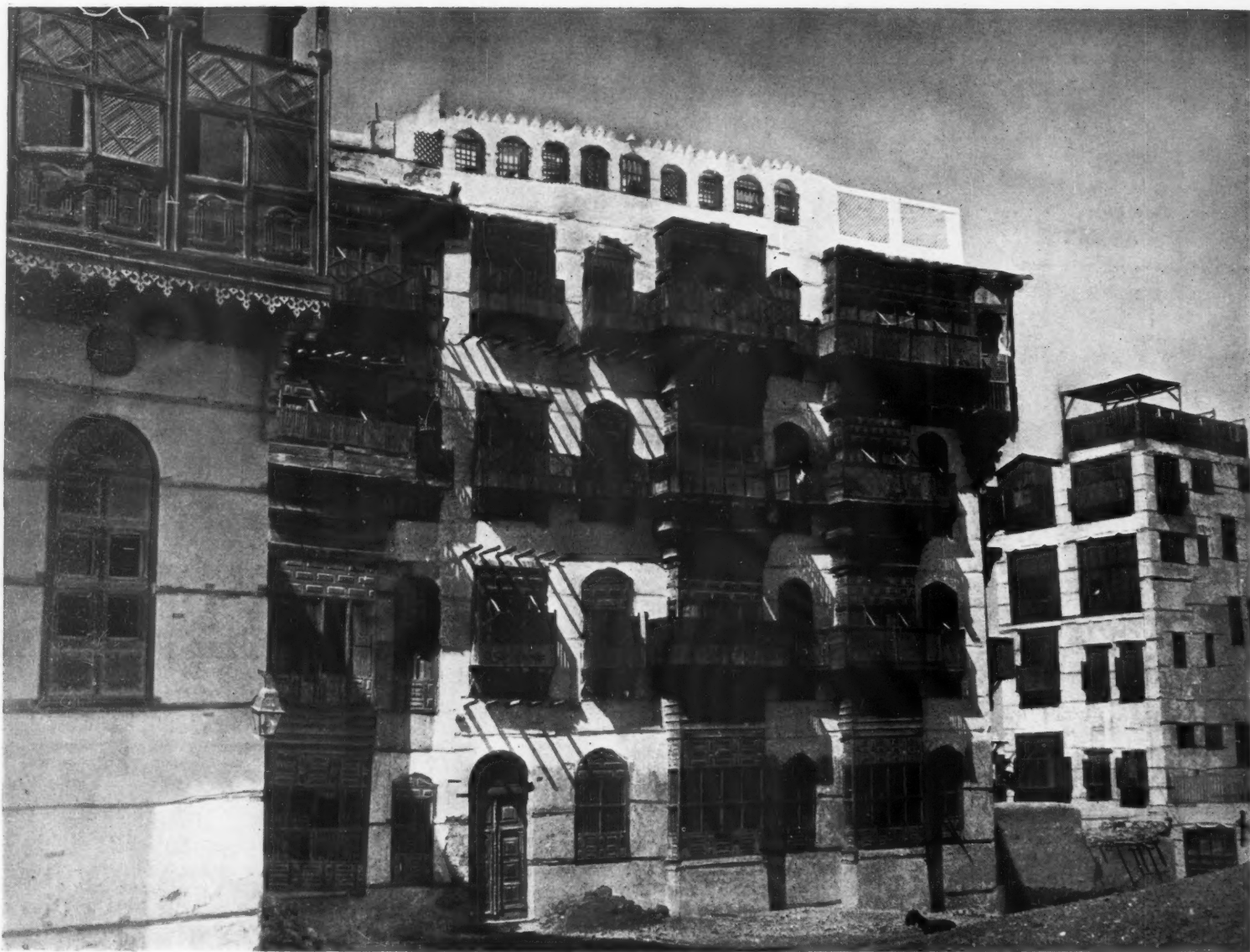
Street scenes typical of Jeddah's tortuous plan. The lanes and little squares are well shaded by the tall houses whose projecting verandahs nearly meet overhead. In these balconies and the window shutters—mostly of carved teak—nearly all the architectural enrichment is concentrated. Two of the photographs are taken in the street of the dyers; dyeing is an important local trade and strips of cloth newly dyed with indigo are hung up to dry in the sun. Alongside the fine carved doorway in the street at bottom right is a typical oil-burning street-lamp. Jeddah has no electricity.

The cliff-like façades of the merchants' houses that crowd the port quarter of Jedda. They are built of unfossilized coral rag—or madrepora — colour-washed yellow or white. The carved wooden verandahs and the typically Arab mushrabiyyah windows are mostly of teak imported from the East Indies.



Below, one of numerous squarish courtyards in the centre of the town, each linked with the next by narrow alleys. In the heat of mid-day few people are out in the streets.





Above, a close-up of typical Jeddah houses. Many of the inhabitants sleep on the flat roof, which has a high parapet pierced with wooden-grilled openings to allow the circulation of any cooling air-currents there may be at night.



Although decoration mostly takes the form of carved verandahs and mushrabiyyah windows, as in the houses above, some of the more prosperous houses have the ground floor stone work carved in geometrical patterns—

—and the front door itself is sometimes richly decorated, as in this merchant's house, right, where a mixture of European motifs is used instead of the conventional Arab incised geometry. The European influence has probably arrived by way of Egypt or Syria.

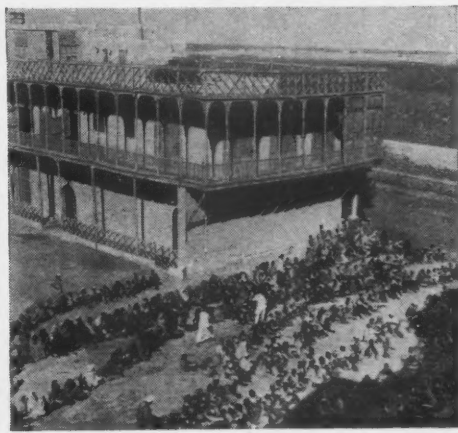


THE PILGRIMAGE. *Jedda wakes to vehement life at the time of the annual pilgrimage to Mecca. Right, white-robed pilgrims disembarking with their luggage. In the background are the masts of the sailing-dhows they have come in, and beyond is the lagoon. Below, the quay where pilgrims land, and pilgrims waiting outside a Government office.*

windows and wooden shutters. Some have bow-windows, which exhibit a great display of joiners' or carpenters' work. There is, generally, a spacious hall at the entrance, where strangers are received, and which, during the heat of the day, is cooler than any other part of the house, as its floor is kept almost constantly wet. . . . Uniformity in architecture is not observed at Djidda. Some houses are built with small, others with large square stones, the smooth side outwards, and the interior filled up with mud. Sometimes the walls are entirely of stone; many have, at intervals of about three feet, thin layers of planks placed in the wall, and these, the Arabs imagine, tend to increase its strength. When the walls are plastered, the wood is left of its natural colour, which gives to the whole a gay and pleasing appearance, as if the building had been ornamented with so many bands; but the dazzling white of the walls during sunshine is extremely distressing to the eyes."

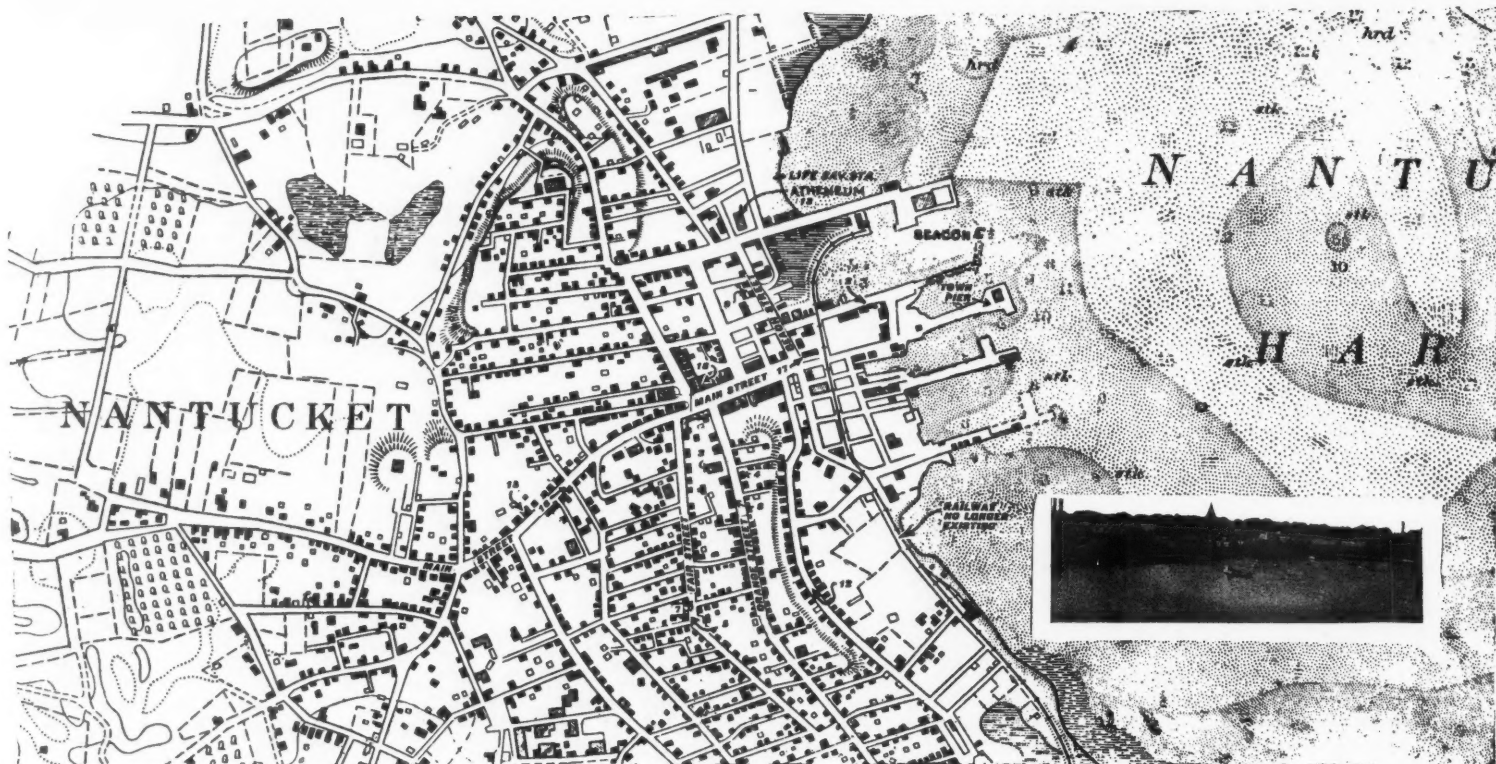
Jedda seems to have changed but little since Burckhardt saw it. It still gives the impression of being well built, and all is of a clean, dusty brightness: town wall, gateways and the sandy desert without; the towering, shuttered houses within. The houses are still mostly white, cream or yellow in colour. They are fairly plain up to a certain height, but the upper wall-surface is almost covered with a patchwork of timber, stained red or brown or natural weathered grey, compounded of balconies and bay-windows, screens, shutters and fretted parapets. Almost all the buildings are impressively tall—not quite on the scale of the celebrated skyscrapers of the Hadhramaut, but of five or six storeys and the effect of verticality emphasized by the way, close-packed, they rise from the dead flat desert. The structure of the buildings is coral rag (Burckhardt's "madrepore") which comes from the reefs along the sea-shore. It is colour-washed or plastered. The timber in the upper storeys, as already mentioned, is generally teak from Java, and the successive tiers of projecting bay-windows often nearly meet across the narrow alleys. It is in these bay-windows, and in long first-floor verandahs, that most of the ornament—as in Burckhardt's time—is concentrated, though the grander houses often have carved front-doors of some richness. But for all this elaboration it is the simple cubic shapes of the building masses that give Jedda its architectural character; the horizontal skyline of the town is broken only in a few places by the vertical pencil of a minaret. It is in a sense a regional style; Yenbo up the coast is very similar, and so is Suakin on the African shore opposite—an ancient Arab port that has been allowed to decay quietly since the modern harbour was established at Port Sudan close by. But in Jedda the regional building tradition still flourishes, as evidenced by the difficulty of distinguishing between the newest houses and those which are centuries old. Coral rag is not a lasting material; it disintegrates in time in the moisture-sodden air which makes the Red Sea climate so oppressive in summer-time, and walls have constantly to be renewed. The local craftsmen can be observed at this work, following, by tradition and instinct, exactly the methods of their forebears.

The character of a regional architecture, besides being the expression of an unchanging way of life, is also—it goes without saying—derived directly from the demands of climate and the limitations of local building materials. The factors which dominate the architecture of the Red Sea are the heat and the intense sunlight, requiring narrow, shady streets, balconies to catch the occasional sea breezes and well-screened windows. The painful glare of the sun, reflected alike by wall and ground surfaces, is the overwhelming impression



Jedda or any other Arabian town makes on the unaccustomed eye, as the observers quoted above have not failed to emphasize. But there is a moment at sundown—even with the abrupt twilight of these latitudes—when to look at the tall white buildings, rising behind the equally white town walls with their modestly battlemented gateways, is no longer a strain. From being flattened by the glare they emerge robustly modelled in the mildly golden light. This is the active hour of the day, when the inhabitants come out into the streets to breathe the cooling air. For Moslems it is also the hour of prayer; for Europeans, strangely enough, the hour to put their watches right, for Jedda observes a peculiar time-

system. The hours of the Moslem day are numbered from sunset, but it is considered too confusing, in so cosmopolitan community, to follow a system which would mean dining at two and going to bed at six; so the European clock is used but, to preserve a consistent relationship with Moslem time, it changes like the latter with the sun. Across the unbroken desert and the level sea the exact moment of sunset can always be observed. As the ball of the sun, still glowing hotly, disappears below the horizon, and as the Moslems turn in prayer towards Mecca in the east, provident Europeans glance westwards and, whatever the season, set their watches to precisely six o'clock.



NANTUCKET

by TALBOT HAMLIN

MORE New England than New England itself, more Separatist than the most extreme Puritan or Pilgrim, entirely characteristic yet strikingly individual, Nantucket is perhaps the most interesting small early port city of the United States. From the beginning it was settled by those who found themselves hampered by the rigidity of Puritan communities, by the adventurous seeking for new seas to fish, by the imaginative who saw in the rolling land, the sea beaches,

From the time before the Revolution up to 1850 Nantucket was the whaling capital of the world, so much so that during the Revolution it received from the Royal Navy then blockading the coast a special dispensation to allow a certain number of its whalers free passage. But, as whalers grew larger in the nineteenth century, the harbour bar gradually silted up. The whaling trade little by little shifted to Martha's Vineyard and New Bedford, and from 1850 on Nantucket gradually went to sleep; its population dropped from around ten thousand to around five thousand during the second half of the nineteenth century. Yet most of the old families stayed on, living on the fruits of the careful investments they had made of their wealth, keeping up the old houses, and keeping alive—even to the present time—something of the real traditional civic feeling of the town, but seldom building new houses or, in fact, new structures of any kind. The three long piers that stretched out over the shallows into deep water were gradually deserted, the warehouses emptied.

were evident, and one by one the old settlers moved to the new location.

To understand the plan of Nantucket it is necessary to realize the forces behind its layout. The island is a rolling mass of gravel and sand, glacial in origin, with but a thin layer of soil. Trees grow in certain valleys, but areas fit for agriculture are limited and scattered. Today only the cranberry is raised there commercially, and it grows wild in the boggy valleys between the low glacial ridges. Apart from fishing and, later, whaling, the great economic asset of early Nantucket was pasture. The entire moor area back and south of the town was an unfenced common pasture. There were few other centres of population on the island of any importance, so that main roads hardly existed. Everything focuses



The numerals on the plan at the head of this page correspond with the numbering of the illustrations to the article. 1, At Siasconset; a fisherman's cottage transformed for summer use.

and the protected lagoons an opportunity for a broader and a richer life.

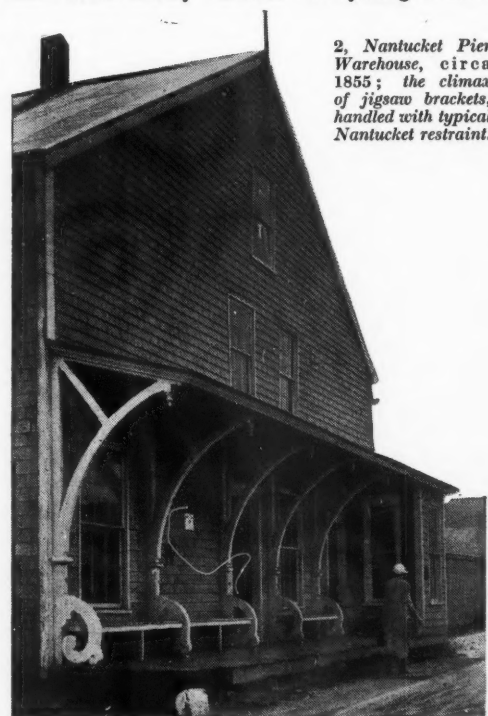
The island was first granted by Ferdinand Gorges to Thomas Mayhew in 1640. Nineteen years later Mayhew sold it to nine additional proprietors, and the names of those proprietors—Coffin, Swain, Macy, Barnard, Hussey, Starbuck, and others—run through the whole history down to the present day.

Quakers visited the island as early as 1664, and periodically thereafter, until at the beginning of the eighteenth century Nantucket was as much Quaker as anything else. Quakerism as a sect flourished, reaching a climax in the middle of the century, and then slowly declined. Today the Quaker meeting is dead and the meeting house has become a museum. Yet the Quaker influence—that mixture of restraint, decency, a kind of spiritual stubbornness, generosity, and good living—has left its impress indelibly on the houses of the town.

It was whaling that made Nantucket's fortune.

A new prosperity began for the town with its development as a summer resort from the 1870's on. Yet, fortunately, just as it had originally appealed to a selected and special group of settlers, so now it seemed to appeal to a special kind of summer visitor who loved and revered its old streets, its lovely houses, its rolling and characteristic landscape. The new summer cottages were built along the sea bluff a mile or so from town, or over on the south side of the island; and the little fishing village of Siasconset—'Sconset—had its cottages adapted to summer use with scarcely the change of a shingle, 1.

As a result the town of Nantucket stands today largely as it stood in 1850. Its great houses, often still in the ownership of the original families who built them, chronicle the whaling wealth and the whaler's taste; their general excellent condition, the beauty of the old-fashioned gardens around them, and the quality of care they have continuously received bear witness to the enduring tradition. The town of Nantucket itself was not the first place of settlement—this was at Medaket, on a smaller harbour, now a land-locked pool—but by the end of the seventeenth century the advantages of the new site on its larger harbour



2, Nantucket Pier Warehouse, circa 1855; the climax of jigsaw brackets, handled with typical Nantucket restraint.

from the moor pastures in a rather generalized way on to the harbour, so that the town plan—fairly systematic, close-built, and consciously laid out near the water—gradually becomes more and more wandering and formless as it rises to the higher moorland behind, and the roads there seem almost the careless perpetuation of sheep paths.

The harbour, at the western end of the beautiful lagoon stretching seven miles parallel to the shore and some two miles wide, is glorious. It is entered by a natural passage through the beach, now protected by carefully built stone jetties and breakwaters, but in early days subject to rapid changes and the inevitable silting up that brought a final end to the Nantucket whale trade. Into the harbour stretch three long piers, with sides of boulders, centres filled in with sand and earth, and pilings around. These all date from a very early period.

The "Town Wharf" remains today one of the chief social centres of the town, with benches along its outer end, where one can sit of a summer evening and watch the anchoring yachts or see the moon come up over Wauwinnet, seven miles down the lagoon. The old warehouses, 2, in part still stand. The little individual sheds where ship-owners stowed their gear have become studios, curio shops, and little restaurants. As one approaches and swings around from the narrow passage into the wide lagoon, the whole profile of the town rises before one, climaxed by the gold dome of the Unitarian Church tower, with a foreground of the busy long wharves and a multitude of small craft moored between them. Close to the northernmost wharf, the "Steamboat Wharf," is an interesting relic of the early days of shore resorts—one section of the original Nantucket bath-house, built in the 1850's. Within, its central hall, with little cubicles opening off on each side, is simply but elegantly trimmed in early "steamboat style," for in the mid-century Nantucket had to be elegant even when it bathed.

At the head of the Town Wharf and, symbolically, at the foot of Main Street, stands a simple brick building with characteristically austere but gracious proportions, now called the "Old Captains' Club," 17; it was the Brown "store" or shop at the time of the Revolution. (It is typical of Nantucket's Separatism as well as of its defenceless position, twenty miles out to sea, that during the Revolution, Nantucket declared and somehow preserved a rather precarious neutrality, sending repeated emissaries, among whom Brown was perhaps the chief, both to the mainland Americans and to the British in New York in support of their extraordinary position. The Quaker influence undoubtedly played a part in this policy.) Later, the Brown shop was used as a courtroom, and because of its position has always enjoyed a semi-official character. In front of it, the bottom of Main Street opens out into a sort of triangular place, expressing perfectly the focal diffusion of the town towards the three piers and the shore front.

Away from the shore Main Street climbs a gradual slope to the moorlands behind, straight at first, then splitting and curving off as the contours suggested. The straight part is the business centre of Nantucket. In the gracious two-storey buildings of brick that line it, 18, 19, shops occupy the ground floor; the first is usually devoted to offices for the few professional people and the various organizations of the town. Where the road splits, two banks, both of early nineteenth century construction, stand across the street from each other, as though somehow expressive of their dominance in a commercial society. Beyond, Main Street as it curves towards the country is lined with the richest and most lavish houses.

As the town grew, a certain number of parallels grew up to the north of Main Street. The other important streets are chiefly at right angles to it, following the contours and connected here and there by a few steep and unimportant roads that climb the hill. The most important of the contour streets is the second one from the shore, Orange

Street, which contains a number of magnificent houses and at its summit the austere, commanding profile of the Unitarian Church, 8, topped by its gilded pinnacle dome. Back from the shore the houses grow smaller, and the streets are more informal until one by one they peter out into cart tracks over the moors. Just at the edge of the town, on the highest point of land, stands Nantucket's last remaining windmill, one of an original row of three; its sails still lazily rotate today as it continues to grind a special—and expensive—stone-ground cornmeal.

Two things stand out in the aspect of the town as a whole. One is the amazing harmony of its buildings, big and little, lavish and simple. The other is a peculiar and characteristic type of site planning. The houses all have roof slopes of approximately thirty-eight to forty degrees, and this uniformity of triangular gable seen everywhere, often against a background of great trees, is restful and serene. The greater number of the houses are of either three or four bays, approximately square, with a door off-centre. Those on the contour streets frequently have high basements and stoops, 6, to take care of the slope of the land. In the three-bay house the hall is at the side, with two rooms, one behind the other, occupying the remaining part. In the four-bay house a little narrow room is at one side of the entrance; it is said to have been an ideal place for sewing, housework, and sitting at the window to watch the world go by.

Generally chimneys are large and simple, whether at the centre or at either end of the house. Often there is a railed platform—the so-called widow's or captain's walk—from which one could watch the ships approaching or leaving. Sometimes this is reached by a simple roof hatch, sometimes through an actual glazed cupola. Most of the houses are now weatherboarded, with shingle roofs, but in the eighteenth century, at least, shingles were the almost universal wall covering. The present predominant white colour of the house walls apparently developed in the early nineteenth century, about the same time that weatherboarding began to replace shingles. It is noteworthy that some of the smaller houses in Nantucket, and all those in 'Sconset, are still shingled complete, the shingles left to weather silver grey, 1, 10. There is record also that in the eighteenth century, and even later, many houses were painted that dull but rich red of iron oxide which in America is known everywhere as "barn red." Even in Nantucket the classicizing phase of early nineteenth century architecture replaced the earlier variety and richness of colour with the elegant uniformity of white.

There are a few exceptional houses built by the great whaling families. Almost all these are of the usual Georgian five-bay type and several are of brick imported from the mainland. It is said, too, that many of the houses were framed complete on the mainland and the frames knocked down and shipped over by schooner. These brick houses, such as Moor's End or the Starbuck houses, 15, on Main Street, are as simple and austere as the wooden houses—and as gracious also. In the details of moulding and carving they usually seem from ten to twenty years behind the current styles on the mainland. Nantucket had worked out the kind of house it liked and stuck to it. Thus the Starbuck houses, which in some ways resemble Salem houses of 1810, were built in the 1830's, and in the work of the forties and even the fifties Nantucket held close to simple classic detail.

There are also occasional double houses, 7, which preserve all the charm of the single dwellings, but with the increased repose created by the longer roof lines, and Orange Street boasts an early and delightful example of the terrace house, 8, another indication of the urban feeling of the town.

Exceptional, too, is the pair of great Greek Revival houses built in the 1840's for two of the Starbuck daughters when they married, 16. These reveal the touch of the off-island architect (they have been attributed to Russell Warren of

3, Unitarian church and parsonage, Orange Street.

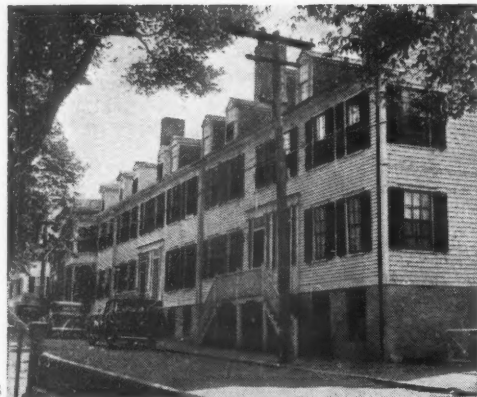


4, Gadd House, Orange Street, which has its entrance at the side. 5, a general view of Fair Street.



6, a brick house with stoop, possessing the quiet Quaker dignity of many of the larger Nantucket houses. 7, semi-detached houses in Fair Street.





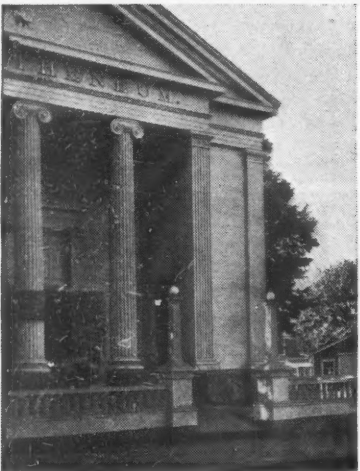
8, a row of houses in Orange Street. 9, house in Beach Street; Perret-like construction from the 1850's.



10, a "poor" street in Nantucket, exhibiting the same pervasive rhythms as the more opulent quarters. 11, mantelpiece in a small house in Orange Street.



12, a Nantucket water-side street. 13, the Athenaeum; housing a library and historical society, this was built in 1848, perhaps by an "off-island" designer. It is said to reproduce a church burned in 1846.



Providence), and their adjacent colonnades, so different and yet so harmonious, are one of the great features of upper Main Street.

Another exceptional house stands close to the water, to the north of Main Street—No. 4 Beach Street—a house which reveals extraordinary originality of structure and design, 9. It probably dates from the 1850's, and in its structural posts, subtly fluted, without capitals or bases, carry the entire structure, the wall behind them being a mere screen in quite the most approved modern fashion. The detailing of the gable windows shows the same search for original and expressive form, and the whole, with its basic classic form and its revolutionary construction, seems a strangely accurate foretaste of the work of the Perret Brothers in France eighty years later.

Nantucket is by no means dominantly a town of big and wealthy houses. It is no Versailles or Potsdam. On its southerly edge, where it gradually frays out into the moor, there are streets of little houses where the poorer fishermen, the Portuguese, and the Negroes live, 16. What is extraordinary is the fact that, although these people live in little houses, there is nothing which one could call an approach to a slum. The basic Nantucket pattern holds true even here. The houses, though smaller, are decent, with the typical Nantucket roof slopes and materials, and often delicately detailed. The fences are found here, too, though less universally than elsewhere; but the flowers—the hollyhocks, the larkspur, the rhododendrons—play their gamut of colour at the sides of the little houses as well as around the larger mansions uptown.

Interior detail, as well, had its own character, and here, perhaps, the island's debt to the sea and to ships is most obvious. One will look in vain for the elegant delicacies, the over-elaborate composition and carving, of Salem's McIntire style. Even later Greek Revival details appear in Nantucket interiors in new and flattened and restrained ways. Everywhere the trim has the flat, strong, simple delicacy that one associates with ship cabins, 11. As in parts of Maine to the eastward, so in Nantucket, the carpenters' work in shipbuilding and ship fittings inevitably affected the handling of mantels and doors and window surrounds.

Perhaps it is the site planning of Nantucket that is chiefly responsible for its character. Nantucket never lets you forget that it is a city—small, perhaps, yet urban. Its streets are city streets, not country roads. Its dignified business buildings express urbanity and permanence and its houses, wherever possible, were built with one end, if not one side, directly on or close to the sidewalk line. This at once gives the streets a unity that is lacking where setbacks are wide or varied, and it expresses as well the close community relationship between the individuals who live in the houses and the town as a whole. Is it fantastic to feel that some of the strong community pride that keeps the town today so spick and span, and brings back old Nantucket families to their ancient homes for the summer year after year, is at least partly the result of this close-knit quality of building and street?

Yet other towns have buildings at the street line. What sets Nantucket apart is its special rhythm of building and open space, of weatherboarding and green garden, 5, 7, 9, 12. As in most Anglo-Saxon communities, the basic lots are narrow and deep, with frontages varying from forty to seventy-five feet, and depths from 150 feet upward depending upon how close the streets are to each other. The houses are nearly always set close to one of the side lot lines, leaving the remainder of the lot as open lawn and garden. In almost every case also the typical American white picket fence stretches across the front of the lot or from the corner of the house to the next lot line, thus tying together the white masses of the simple houses, 1, 4, 7, 9, 12. Hollyhocks are usually planted in thick masses behind the fences, not regularly, however, so that there are always views between their green stalks and bright flowers to the lawn, often tree-shaded, behind.

Any walk through the town reveals this constant rhythmical change of beautifully detailed quiet building, white picket fence with hollyhocks behind, and glimpse of lawn and garden to the rear.

Occasionally the chief house entrance is at the side, 4. The house itself, with its main mass set at the front of the lot, usually stretches well back, with wings and sheds of lower and lower roof lines, to the old privy outhouse and sometimes a little barn or stable, though there were never many horses on the island. In the wings will be the summer kitchen (sometimes the all-the-year-round kitchen) and the back door (often the door most used), and from the wing windows one looks out on one's own garden with that privacy which is the necessary and here the perfect complement to the close attachment of the front of the house to the street. These side yards and gardens have always played an important part in the life of Nantucket. Contrary to the usage in most American towns, Nantucket has few roofed-over porches or "piazzas." Instead, the people "sat out" on their side lawns or in their gardens, and old memoirs show that in the past much visiting was done in these charming yards and the lawns were often gay with parasols and wide straw hats.

Only in the business section and certain of the newer parts of town, where the cottages of summer visitors were placed in accordance with the later romantic ideals, is this rhythm interrupted. The business buildings date from 1846-7, after the great fire of 1846, which burned large sections of the town north of Main Street. In them one finds an expression of true co-operative civic enterprise, and the unified design of this street is one of the town's great beauties. It is significant also that immediately after the great fire an extensive campaign of tree planting was undertaken, and the great elms that now so beautifully shade the upward climb of Main Street and certain other of the nearby streets were all planted as part of the enthusiastic campaign of rebuilding which followed that devastating fire.

Colour plays an important part in Nantucket. Main Street and several of the other streets were paved (and are still paved despite the influx of summer automobiles) with granite glacial rounded stones—true cobblestones from the glacial drifts on the island. Nearly all are of granite intermingled with quartz, and they range in colour from almost pure white to a rather deep rose, with the controlling note a pale but definite orange. The sidewalks in the centre of town and on Main Street are of brick, with grey granite curbs. House walls of wood are almost invariably white, but the window sash and sash bars are usually black, as though the Nantucketer were trying to emphasize not his romantic small panes but the gracious basic geometry of his house design. Gardens are filled with flowers of a brilliance only found on alpine heights and where the salt ocean winds bring moisture. Thus everywhere one is faced with richness of colour—the orange of the roads, the warm rose of the sidewalks, the green of the great trees, the white of walls punctuated with sharp black at the windows, and the rhythmical glimpses of enamelled gardens. In no other town that I know do colour, humane land usage, and exquisite three-dimensional composition combine so surely to produce a unified and a winning atmosphere.

Today, in summer at least, a new prosperity enriches the island. The harbour is filled with motor cruisers and yachts—big and little. The Rainbow Fleet, with its sails of emerald, vermilion, cobalt, and bright yellow, races twice weekly. Everyone who has a room to rent can rent it. At mealtimes the little lunchrooms in the buildings along the wharves, the drug stores, and the restaurants are full. In the evening Main Street is crowded. The lights from the shops pour out on the passing throng of natives and vacationers alike. Yet, above, the magnificent elms still flourish, and around their great boles benches are placed, where one can and does still sit, as of old, to "watch the pass."

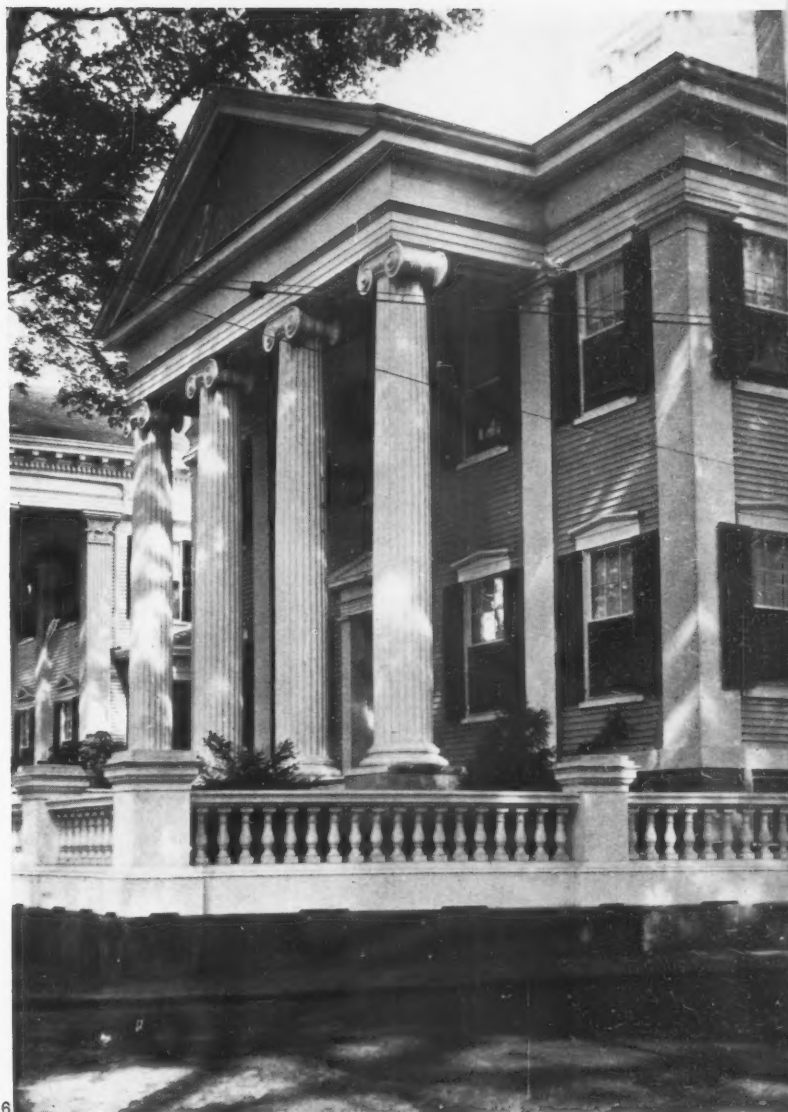
MAIN STREET, NANTUCKET



14



15



16



17

All the buildings illustrated on this page are in Main Street, Nantucket. 14, Macey House. 15, one of the two Starbuck houses, built in 1835. 16, one of the two Greek Revival houses in Main Street. Built in the 1840's, these reveal the hand of an "off-island" architect, and Russell Warren, of Providence, has been suggested. 17, Old Captains' Club, the focal building at the bottom of Main Street. 18, business buildings dating from 1846-7. 19, Main Street from the bottom, looking north-west; orange cobbles, rose brick pavement.



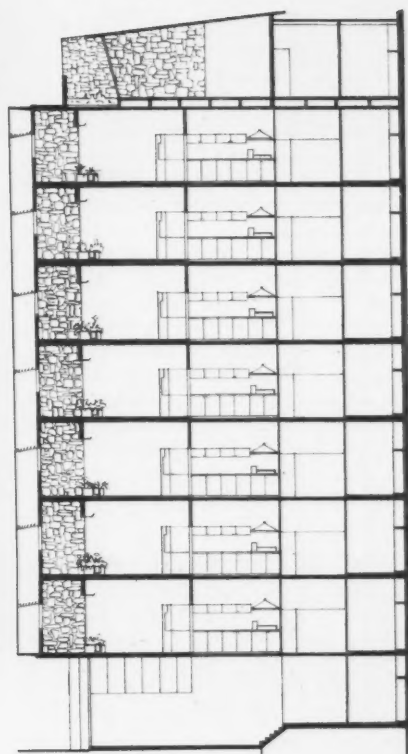
18

19



1, on the facing page, main façade of the flats in the Avenue Copacabana. Wooden shutters as well as brise-soleils are provided to give complete protection from the sun. 2, the entrance, the design in mosaic on the wall to the left is by Paul Wernecke. 3, the indoor garden in Marcelo Roberto's flat, showing the indirect strip lighting above, and the arrangement of the windows.

MARCELO, MILTON AND MAURICIO ROBERTO: ARCHITECTS

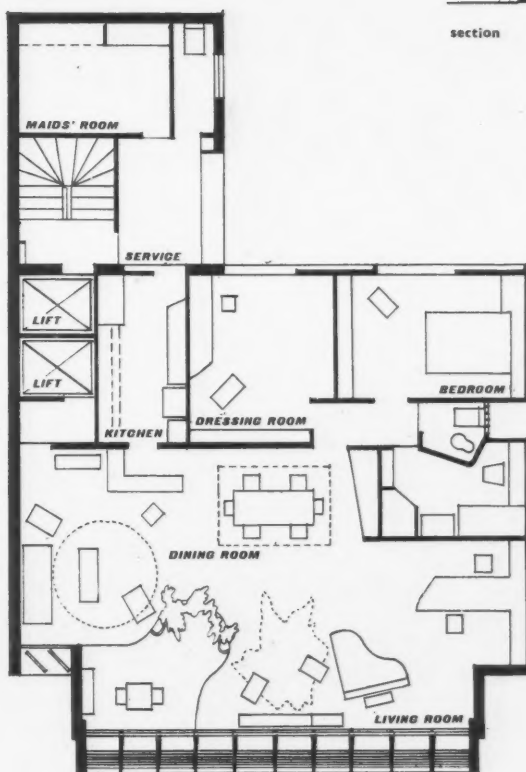


section

0 5 10 15 20 FT

FLATS IN RIO DE JANEIRO

As the building faces directly into the rays of the setting sun during the summer solstice, complete protection had to be provided, and for this purpose there are sliding and fixed wooden shutters. The external brise-soleils are provided as protection against the equinoxial sun. The site for these flats in the Avenue Copacabana covers an area of 40 by 60 feet. Local bye-laws would only allow wooden shutters at the face of the building on one floor, and these can be seen in the photograph on the facing page; the living room of this flat which is the one illustrated, is therefore 25½ in. wider than the others in the building. The flats on the top three floors are occupied by the architects and their mother; on the four lower floors the flats are rented. On the ground floor, space has been provided for a shop. The water tanks and the machinery for the lifts are on the roof. Construction is of reinforced concrete, faced externally with white tiles. Internal walls, where they are not of stone or brick, are plastered. The curved screen wall at the entrance to the building has on it a design in mosaic executed by Paul Wernecke. Bathrooms are finished in various coloured mosaics. Cupboards have wooden slatting at each side to prevent the growth of mould, which is prevalent in Copacabana. Windows, which are divided into three parts, open inwards at top and bottom and slide in the middle; shutters are painted yellow. Artificial lighting is mostly concealed or indirect. The gardens on the roof and at street level were designed by Robert Burle Marx.



typical floor plan

0 5 10 15 20 FT

4, the library end of the living room in the architect's flat and 5, the other end of the same living room showing the wall faced with dark-red bricks.



DESIGN REVIEW

for a discussion of new designs, new materials and new processes, with a view to developing the essential visual qualities of our age: functional soundness, the outcome of science, and free æsthetic fancy, the outcome of imagination.

Advisory Committee:

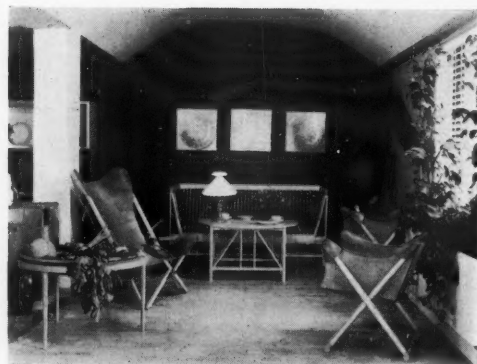
Misha Black, Noel Carrington, John Gloag, Milner Gray, Nikolaus Pevsner, Peter Ray, Herbert Read, Sadie Speight.

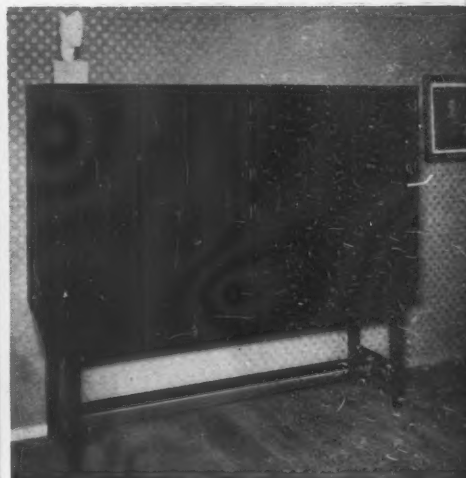
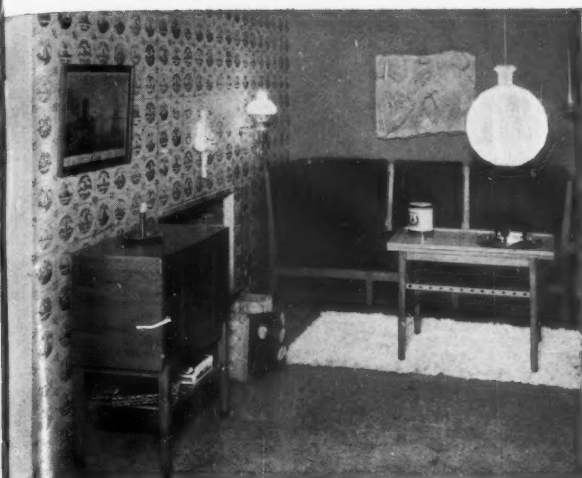
THE COPENHAGEN CABINET-MAKERS' GUILD

Last October the cabinet-makers' guild of Copenhagen held their twentieth annual furniture exhibition at the Museum of Arts and Crafts in Copenhagen. These exhibitions were originally intended to maintain interest among the public for hand-made furniture, and at the same time to bring about personal contact between the craftsman and his clients. They have proved, however, not merely to be a force behind the survival of traditional techniques of craftsmanship, but to be an annual event of æsthetic importance to the furniture designer. The chief reason for this is the competition which is held among architects each spring. From the competing designs for hand-made furniture the cabinet-makers can choose those which they wish to carry out. If none of the designs appeal to them they may commission their own architect or design the furniture themselves. The influence this system has had on the design of hand-made furniture in Denmark is evident from the examples illustrated here. It has perhaps been strengthened by the fact that, in the choice of designs, the cabinet-maker is not influenced to the same degree by doctrinaire design standards as other assessors might be. This results in a lack of uniformity in the designs chosen, which tend, by silent contrast, to make the exhibition a useful medium for breaking down the isolation that usually surrounds the more traditionally-minded cabinet-maker.

NILS OLE PAULSEN

1-4, part of a dwelling for a vegetarian. The furniture is made of ash-wood and the collapsible chairs are of ox-hide. The table for vegetables has a frame of ash-wood and, inserted on top, a large pottery dish, glazed green on the inside. Architect, Mogens Lassen. Cabinet maker, Jorgen Wolff.





5, furniture of Cuban mahogany bleached with peroxide. 6, 7, dining-room furniture of Palisander wood with handles of ebony. The table is provided with additional leaves and is capable of seating ten people. Architect, Kaj Christensen. Cabinet maker, Peder Pedersen.



8, 9, 10, furniture, of light cherry-wood partly painted, for a bed-sitting room. The high-backed chair is specially designed for needle-work, as is the table in front of it; the darning-bag is reached by lifting the middle of the three boxes provided for sewing materials. The chair coverings are of a striped, hand-woven material. Architects, Borge Mogensen and Hans Wegener. Cabinet maker, Erhard Rasmussen.



This furniture for a study is of Cuban mahogany. The chair for the writing table is covered with black ox-hide. Architect, Eric Wörts. Cabinet

Palisander and Cuban mahogany are used for this furniture. The chairs are covered with light ox-hide. Architects, Tove and Edv. Kindt.

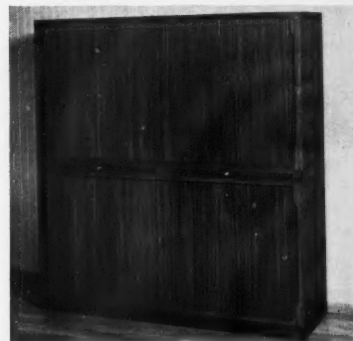
The sofa of elm-wood in 13 has detachable cushions, fastened with leather straps and covered with a woollen hand-woven material by Karen Warming. The cupboard with jalousie, 14, is of frame construction in Palisander wood, with brass handles. This furniture was awarded first prize in the competition. Architects, Grethe Jalk and Einar Larsen. 15, 16, furniture designed by the cabinet maker who made all the furniture for this room, Jacob Kjær.



17-20, furniture of Cuban mahogany. The sofa-table in 17 has a brass top, and the tobacco table, 20, has brass pipe supports, partly covered with leather, and tobacco boxes, with inlaid brass characters and brass rims round the openings; the ash tray and wheels are also of brass. The small chair, 18, has a seat of bamboo plaiting. The chair in 19 is covered with a hand-woven material. Architects, Peter Hvidt and O. Mølgaard Nielsen. Cabinet maker, L. Pontoppidan.



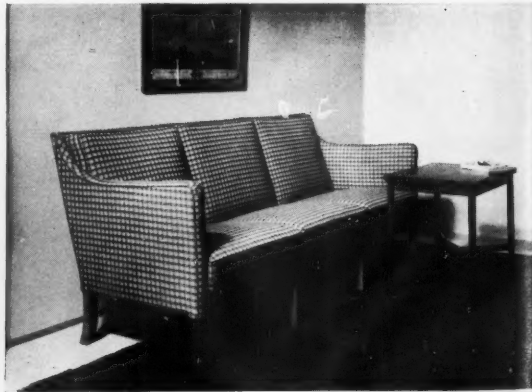
The "fish-cupboard," 21, and the desk-chair covered with light ox-hide, 24, are of bleached Cuban mahogany. The cupboard with jalousie, 22, and the desk, 23, which has a black ox-hide top, are of Tabasco mahogany. Architect, Ole Wancher (except for the desk chair which is by Birthe Iversen). Cabinet maker, A. J. Iversen.



25, furniture of walnut-wood in a room designed for a bachelor. The chair is covered with light ox-hide. The tobacco and wine cupboard, fastened to the wall, is painted. Architect, J. Juul-Møller. Cabinet maker, Knud Juul-Hansen.



26, book-cases of pine-wood, consisting of six units on three plinths. 27, sofa, with legs of elm-wood, covered in a woollen material by Karen Warming. The small table is of walnut-wood. Architects, Grethe Jalk and Einar Larsen. Cabinet maker, Willy Beck.





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There are many drawbacks to the publication of projects in an architectural paper. The foremost arises from the fact that the proof of the art is in the building and not on the drawing board. But for several years to come the drawing boards of most architects in Britain, and in some other countries, will be the focus around which the major part of their creative activities will revolve. The lengthy gap between the design and realization stages in building means that the interchange of ideas which is so essential a part of architectural endeavour, and which is at its most fruitful at the moment of fulfilment, must now take place nearer the moment of conception. As a platform for such an interchange the REVIEW from time to time presents an architectural preview of the most interesting contemporary work which is, and must for some years inevitably remain, on paper.

FACTORY IN SOUTH WALES

This factory is to be built in the South Wales development area. It will be on the southern edge of a town with a population of about 6,000, which, before the war, had one of the highest percentages of unemployment in the British Isles. The project is one of many that the Government is encouraging and financing both to avoid unemployment due to ill-balanced industry and to help the export drive. About a thousand people will be employed.

site

The site is just over 1,100 feet above sea level and very exposed. The climate at this height and in this particular place has called for a design of a kind not usually associated with industrial buildings in this country. The whole site covers about 37 acres including an 18-acre disused reservoir, the water from which will be used for cooling purposes in process work.

The main road leading into the town from the south divides the building site into two parts; on the east side of the road is the boilerhouse—on which building work has already started—sited next to the railway goods yard but about 25 ft. below it. One of the sidings is being extended to run over the building at high level. The coal will be discharged from the trucks direct into the hoppers beneath the track from which it will feed, by gravity, to the boilers. The building is to be connected to the main factory—on the west side of the road—by an underground tunnel duct. This duct will be large enough for normal pedestrian and small truck traffic and will contain all the supply pipes leading from the boilers to the factory. The site on the west side of the road—about 5½ acres in size—falls about 20 ft. from north to south and to a slightly lesser extent from east to south-west. It is bounded on the south by the reservoir and on the west by smallish derelict coal tips. The whole of the 37 acres will be treated as a unit from the landscape point of view and will be developed so far as is possible in conjunction with adjoining land and other probable building development.

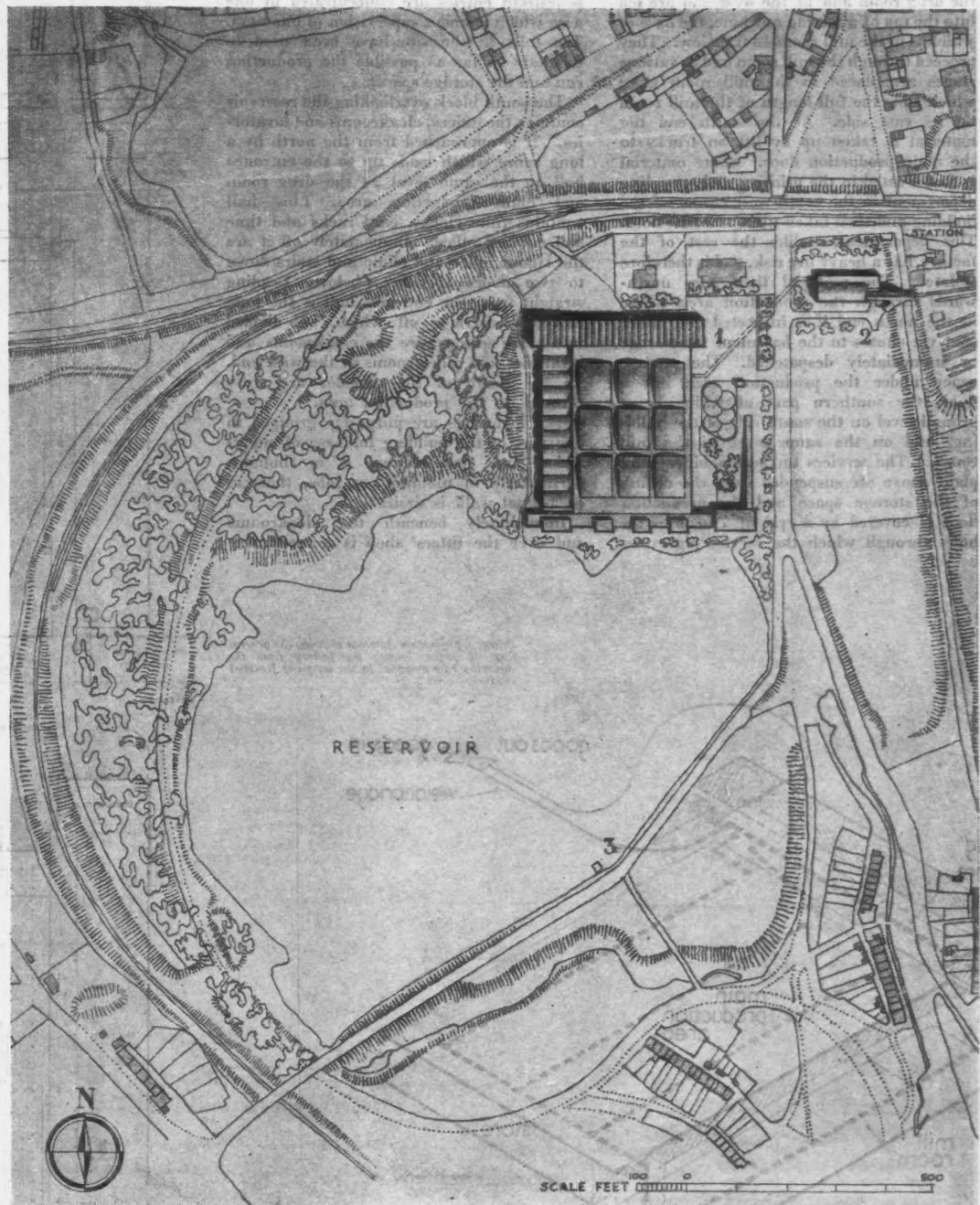
planning

Reinforced concrete has been chosen in preference to other forms of construction for a number of reasons, the most important of which are:—

- (1) The climate which has already been mentioned.
- (2) The simple shapes of structural members, on which there are fewer places where dust, created by production processes, can collect.
- (3) The ease with which the heating and ventilating and other service ducts can be designed as an integral part of the structure.
- (4) The saving of steel during the present shortage.

The building is designed for the manu-

ARCHITECTS' CO-OPERATIVE PARTNERSHIP: ARCHITECTS. OVE N. ARUP: CONSULTING ENGINEER. DAVIS, BELFIELD AND EVEREST: QUANTITY SURVEYORS



Above, the site of this South Wales factory, which will employ a thousand people, is 1,100 feet above sea level and covers about 37 acres including the reservoir. 1, factory. 2, boiler house. 3, pump house.

ARCHITECTURAL PREVIEW

factory of rubber products and is divided into two main sections. (1) The drug room and mill room where the raw material is received, treated and subsequently stored in a semi-processed state. (2) The main production area where the material is manufactured into finished goods.

The requirements for the drug room and mill room are known and those parts of the building are designed to house particular plant. The only requirement given for the main production area is an approximate figure for the floor area which is to be as free of columns as possible because the manufacture of finished products will vary with demand and there is an enormous number of articles that can be made from the semi-processed material.

The raw materials are received at the east end of the drug room and are either stored in the space under the main production area—which is approached by a ramp down from the receiving stores—or are used immediately. The materials pass through the drug room and at the west end are fed into the top of a mixing machine, the base of which is in the mill room 18 ft. below. They proceed through the mill room and at various stages are placed in the mill room store which runs the full length of the mill room on its east side. At the south end the material is taken up by lift on trucks to the main production floor. Some material is first treated in the printing and spreading department in the south-west corner of the building and then taken up to the first floor. This department, unlike the rest of the factory, has a heavy fire risk, and is therefore isolated. The material then goes northwards through the production area where at the north end it is inspected and either sent via chutes to the basement for storage or immediately despatched. The storage space under the production area has a floor, the southern part of which is at ground level on the south side of the building, and on the same level as the mill room. The services to the machinery and plant above are suspended from the ceiling of the storage space and the production floor is covered by a grid of 7 in. by 7 in. holes through which the service pipes can

be brought as required from time to time. It is hoped in this way to overcome the usual necessity for chasing in floors for services, which spoils the floor surface and interferes with production. Here the services can be worked on in peace in the basement, and be taken up through whichever hole is nearest to the machine where it is required, without disturbing the production area until the last possible moment. The holes are at 6 ft. 4½ in. centres and when not in use are covered by a standard cast-iron cover screwed down flush with the floor.

The main production floor is covered with nine concrete shell domes each of which spans about 90 ft. by 70 ft. and is provided with clerestory lighting on all four sides. The lighting is supplemented by circular perspex domed roof lights of 6 ft. diameter giving a minimum daylight factor of 5 per cent. at working level.

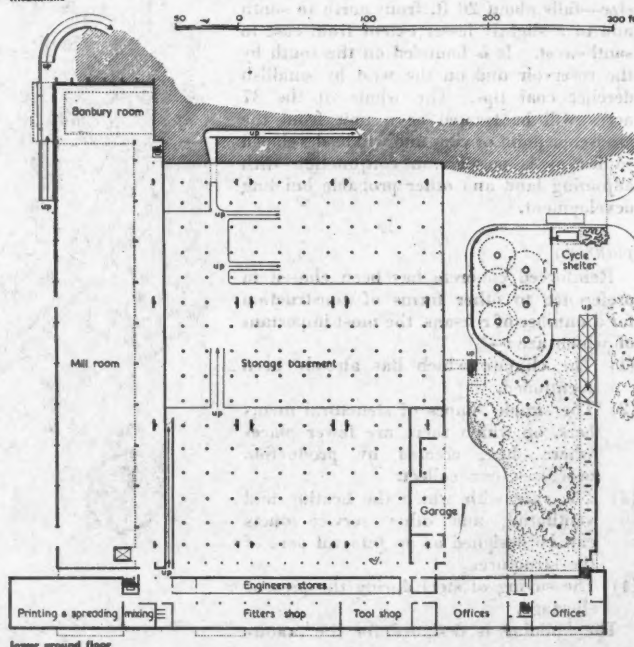
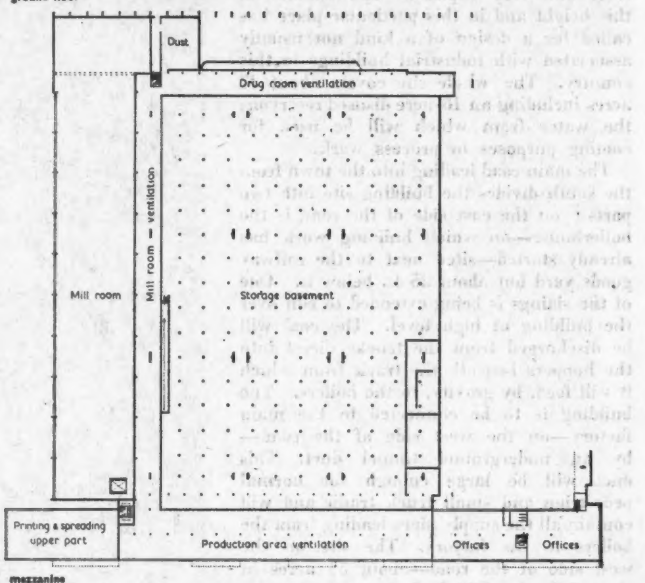
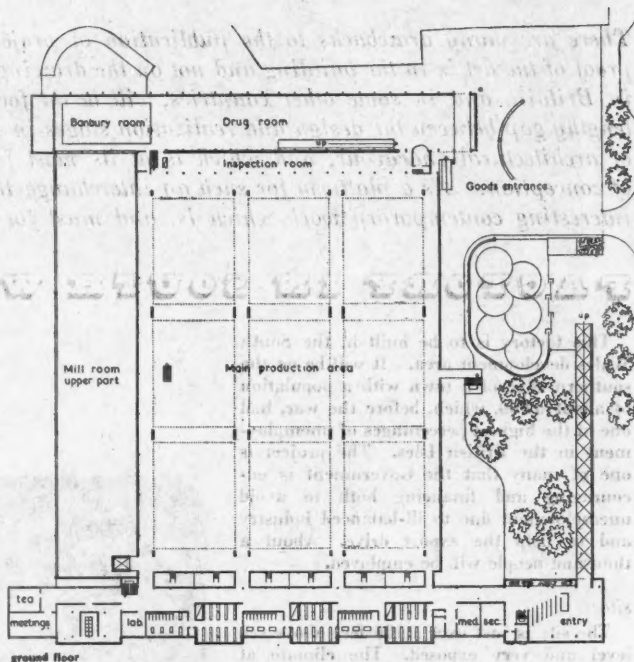
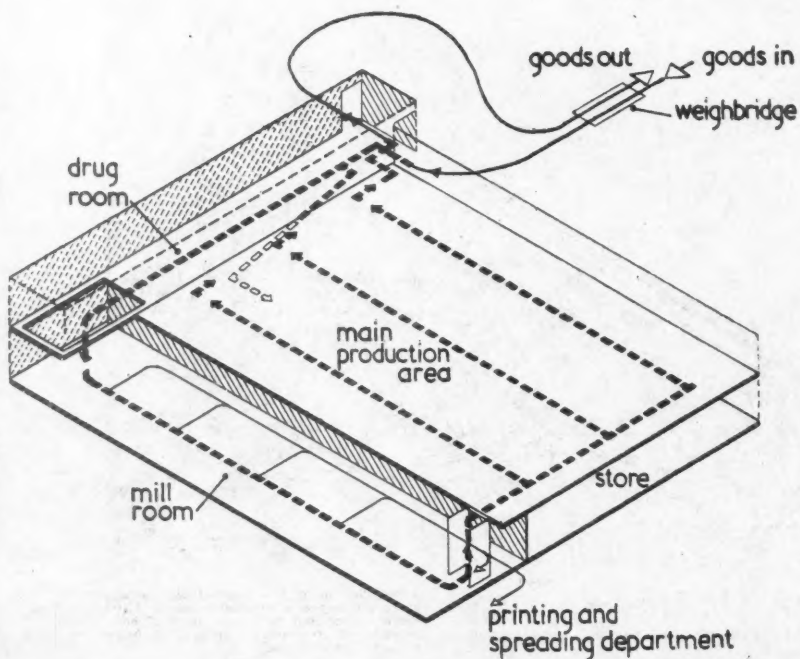
Entrances from the road are kept down to a minimum and all goods, bicycles and pedestrian entries are concentrated in one area which is under supervision of one man. The falls in the site have been used to facilitate so far as possible the production run and the storage space.

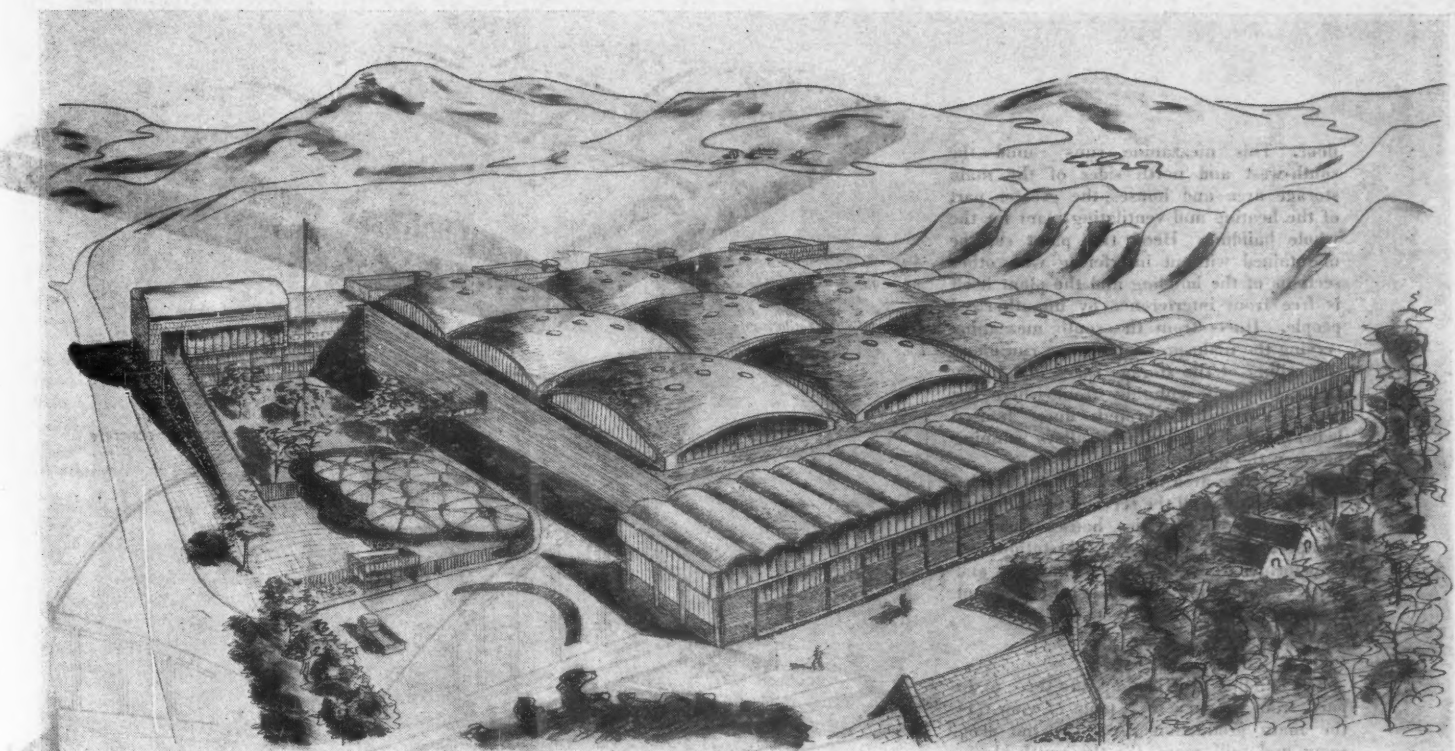
The south block overlooking the reservoir contains the offices, cloakrooms and lavatories. It is approached from the north by a long ramp which leads up to the entrance hall on the same level as the drug room and main production area. This hall contains time clocks, card racks and time and enquiry office. Immediately off it are the labour office and clinic and stairs down to two floors of offices below. Leading straight from the entrance hall is the long east-west corridor off which, sub-divided into three groups, are the cloakrooms and lavatories and other rooms at the west end. To the north of the corridor are ways through to the production area.

The lavatories are purposely grouped in one part of the building for ease of supervision and also because it is thought, particularly in monotonous jobs, that an occasional walk is desirable.

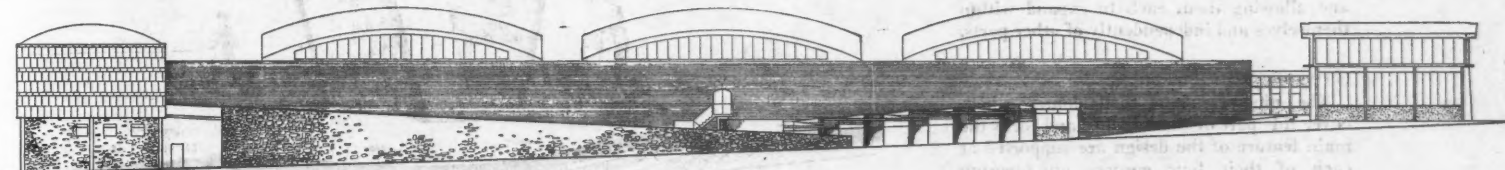
Immediately beneath the cloakrooms and over the fitters' shop is a mezzanine

Below, a production diagram showing the general flow of goods through the factory from the incoming raw material to the outgoing finished product.

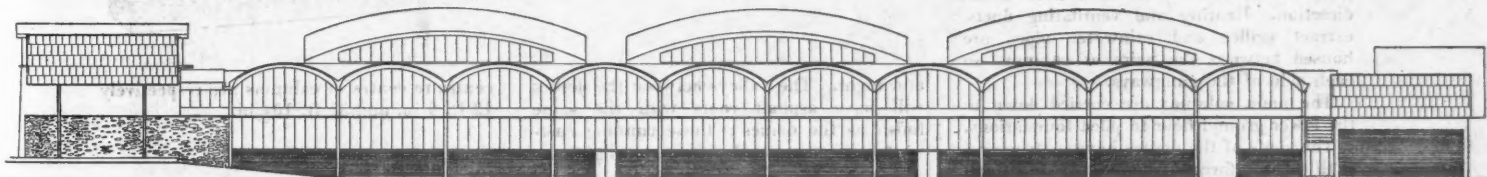




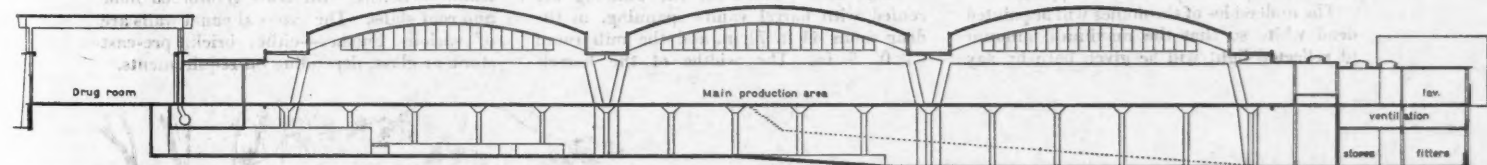
air-view from the north-east



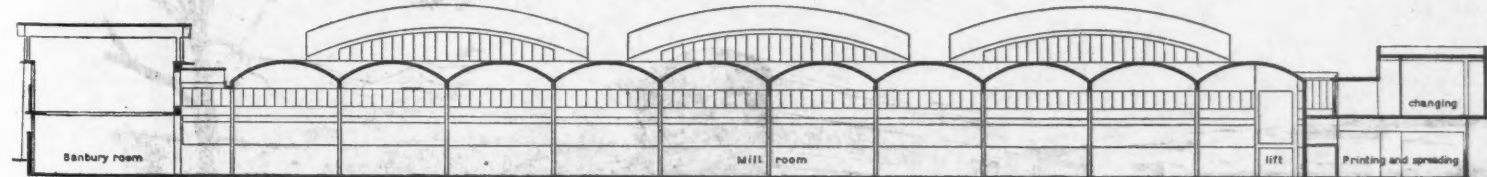
East elevation



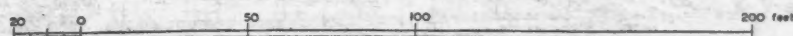
West elevation



North-South section



North-South section



floor. This mezzanine runs round the south-west and north sides of the main storage area and houses the greater part of the heating and ventilating plant for the whole building. Here, this plant can be maintained without interfering with other sections of the building and the plant itself is free from interference by unauthorized people. Ducts from the south mezzanine serving the main production area run along the ceiling of the storage space and up by the main dome columns from where the air is distributed through ducts housed beneath the longitudinal valleys running between the domes.

The storage area in the basement besides accommodating all the services for the plant on the floor above also houses sprinkler pumps and pressure tank, sub-station and transformer rooms, garage, charging and battery rooms, and other general equipment required in a factory of this size.

construction

The building is divided up into three main parts from the structural point of view, (1) the main production area, (2) the drug room and mill room, (3) the south block.

The structure is set out on a modular grid—a unit of 6 ft. 4½ in. being used—to simplify the junctions of various parts of the building and co-ordinate the relationships between them.

Expansion is dealt with by treating the three main parts of the building separately and allowing them each to expand within themselves and independently of other parts.

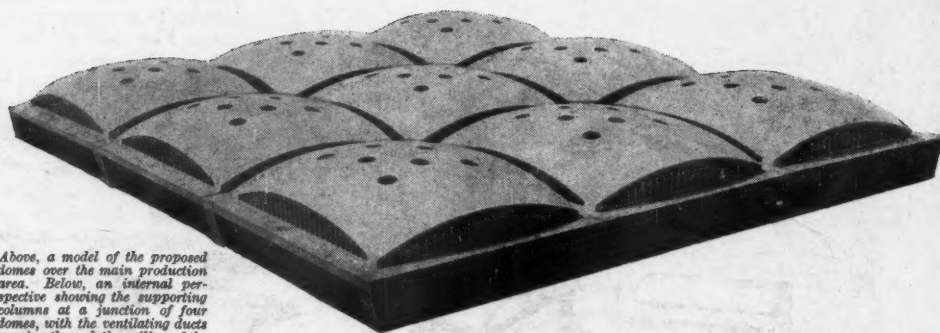
(1) main production area

The nine concrete shell domes which cover this part of the building and form the main feature of the design are supported at each of their four corners on tapering columns which are designed to allow for a gangway between them in a north-south direction. Heating and ventilating ducts, extract grilles and rainwater pipes are housed between the pairs of columns on each side of the gangways.

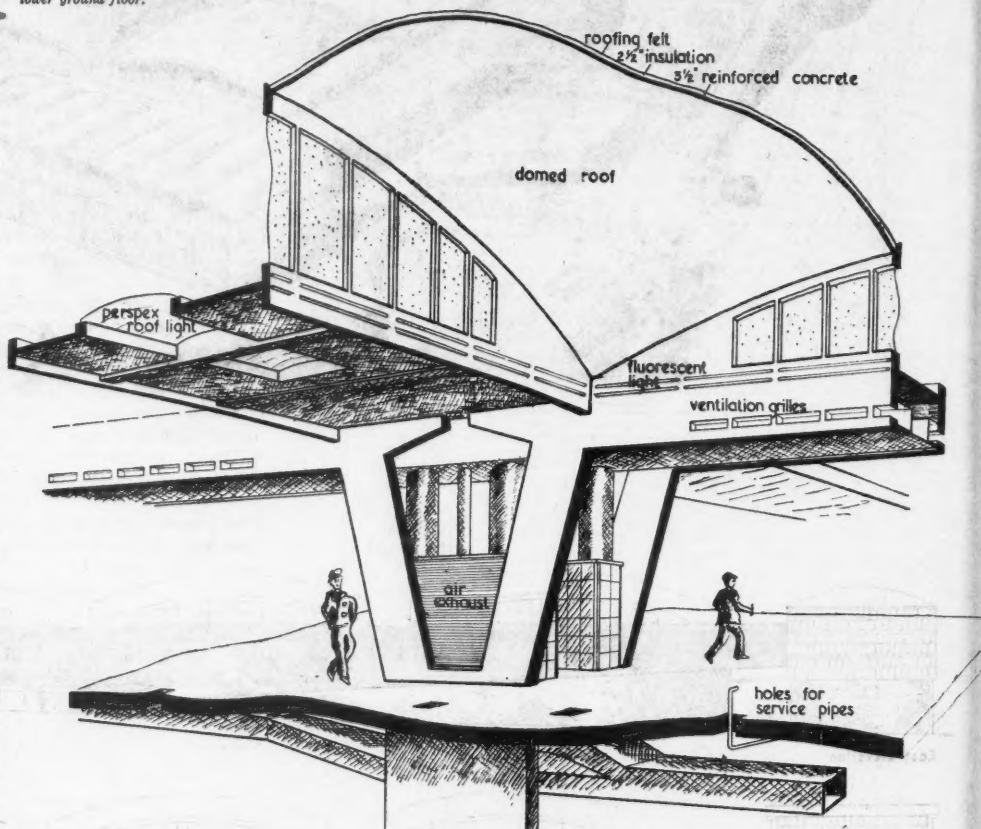
The main columns are carried down to the lower ground floor to piled foundations.

The roofs of the domes have a structural shell of reinforced concrete 3½ in. thick with a 2½ in. skin of insulating cell concrete on top covered by roofing felt finished with a Derbyshire spar stone chipping.

The undersides of the domes will be painted dead white so that the maximum amount of reflected light will be given both by day



Above, a model of the proposed domes over the main production area. Below, an internal perspective showing the supporting columns at a junction of four domes, with the ventilating ducts passing through the ceiling of the lower ground floor.



and night. The valleys between the domes will have asphalt roofs with the same finish as the domes; those running east-west have corrugated perspex top lighting.

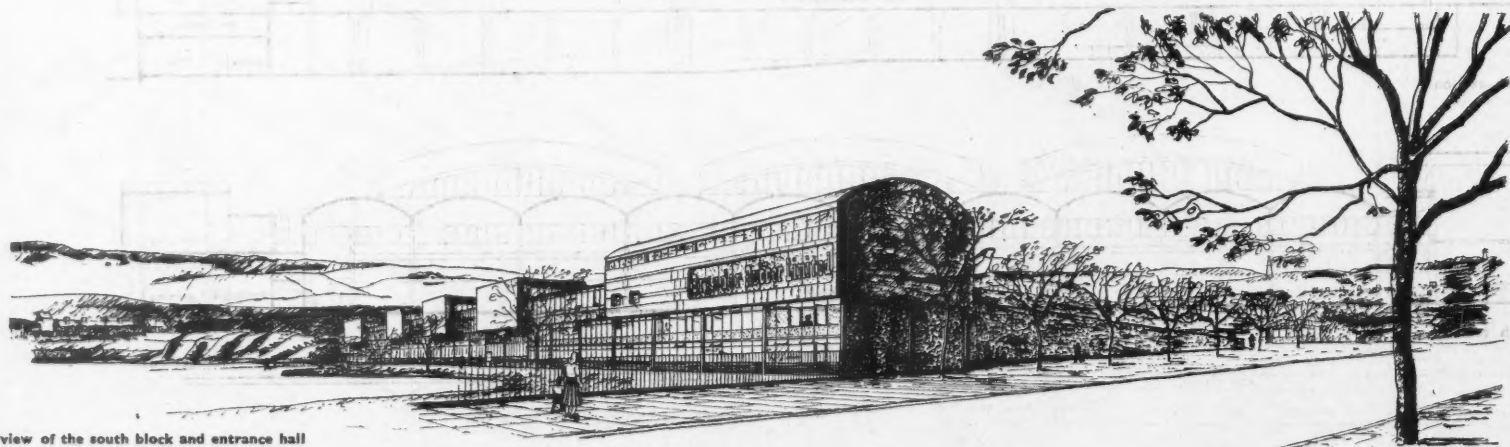
centre to centre of columns are respectively 12 ft. 9 in. and 31 ft. 10½ in.

(2) drug room and mill room

These two sections of the building are roofed with barrel vaults spanning, in the drug room 44 ft. 7½ in. and the mill room 63 ft. 9 in. The widths of the barrels

(3) south block

This section—with the exception of the entrance hall—is a reinforced concrete frame structure with cross reinforced floor and roof slabs. The external panel walls are of various finishes—either brick, pre-cast stone or glass, depending on requirements.



view of the south block and entrance hall





THE BAVARIAN CHAPEL, LONDON

Of the seven chapels attached to the embassies of Roman Catholic countries which existed in eighteenth century London only that of the Bavarian Ambassador, in Warwick Street, remains. Since 1870, when the King of Prussia assumed the title of German Emperor and the Bavarian Ambassador was consequently withdrawn, it has been a Roman Catholic parish church, and is now known as the Church of the Assumption. A few years ago there was a move to restore its much bedeviled interior to its original state but the war intervened.

In England between 1688 and 1778 Mass could be offered legally only in the chapels of the Foreign Ambassadors. Only one of the seven Embassy Chapels which the Catholics of London attended during this period has survived, the chapel of the Bavarian Ambassador in Warwick Street, now known as the Church of the Assumption, all the others have been demolished and rebuilt.

The registers of this church in Warwick Street date back to 1735, but it is known to have been in use before that date when it was in the possession of the Portuguese Ambassador, who later moved to South Street, Mayfair. The Ambassador lived in Golden Square in the houses numbered 23 and 24, one of which is now the presbytery. A courtyard at the back of the house formerly separated the Ambassador's residence from his chapel, but gave him access to it without obliging him to leave his own territory; the public could enter, as they do now, from Warwick Street.

These Embassy Chapels were poor unadorned buildings compared with the Royal Chapels of Somerset House, St. James and Whitehall, where the Catholics of the seventeenth century had been able to worship—they were purposely designed to resemble the usual type of Lutheran meeting-house in order to attract as little attention as possible and were built with an eye for defence against mobs and rioters. The façade of the Bavarian chapel is typical of its class, but it appears to have been altered in the early nineteenth century, when two windows were inserted on the street level. These windows are out of scale with the windows above and spoil the dignity of the design, and they would certainly not have been desirable during the stormy "No-Popery" period between the Revolution of 1688 and the Gordon Riots of 1781. The slits or spy holes which can still be seen beside each side door were doubtless useful for distinguishing friend from foe; for it was often dangerous to open the doors too readily. There was no cross on the brick pediment during the eighteenth century and no notice board advertised the name and character of the building.

The interiors of these chapels were almost as restrained and unadorned as their exteriors and in no way representative of the kind of building which Catholics at that time thought desirable or worthy for Divine service. It is, indeed, a far cry from the Rococo splendours of Catholic Bavaria to the aridity of the Bavarian Ambassador's chapel in London, a plain rectangular building with galleries on three walls and a reredos of carved wood behind the High Altar. This reredos, now destroyed, was formed of a pediment supported by fluted Corinthian pillars framing a plaster bas-relief representing "the Assumption of the Blessed Virgin." There is a tradition that this relief (now to be seen on the wall above the sacristy door) is the work of Westmacott's assistant Carew who modelled the altar-piece of St. John the Baptist's church at Brighton, but its appearance suggests a much earlier date than Carew and it seems almost certain to be the work of Collins, an English plasterer of the mid-eighteenth century. There are similar reliefs at St. Mary's, Warwick, and in the library of Magdalene

College, Cambridge, both the work of Collins from designs by Lightoller.* This artist also worked at Somerset House, at Kedleston and at Harewood House. The mouldings of the present ceiling appear to date from the late eighteenth century, but the fundamental structure of the beams and panels is probably earlier. Doubtless chandeliers were originally suspended from the plaster rosettes which still adorn the central panels. Although the sculptors Rysbrack and Scheemaker both lived near this chapel and worshipped here, their talents were never called upon to adorn it, because no Catholic Chapel after 1688 dared exhibit any statues fearing to give an excuse for raising the cry of "idolatry"—a bas-relief or a painting behind the High Altar was as much as Protestant public opinion would tolerate.

As these chapels were far too small to accommodate the crowds that frequented them they were usually furnished with galleries, whilst the floor space during the eighteenth century remained unencumbered with pews or chairs and the worshippers stood or knelt on the boards.

It was in this chapel in 1767 that the fashionable painter Angelica Kauffmann had the unfortunate experience of getting married to a valet in the belief that he was his Master, Count de Horn. She and her father lived at this time in Golden Square.

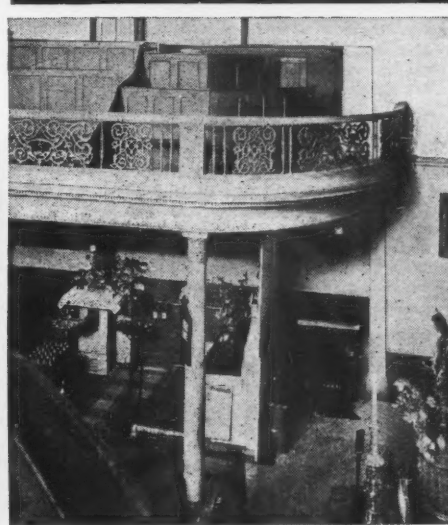
In 1780, during the Gordon Riots, the Bavarian Chapel suffered the same fate as the other Catholic Chapels, when even the houses of the Ambassadors and of prominent Catholic laymen were looted. After the riots the chapel remained closed for eight years although compensation for the damage was paid by the Government. It does not seem clear how much damage was done. Some reports say the place was burnt, others that it was looted and burnt. It seems probable that the mob looted it and burned the contents in the street. A woodcut of 1852 depicting the Requiem sung here for the Queen of Portugal shows the Corinthian reredos and the bas-relief of the Assumption intact. If these date as their appearance suggests, from the mid-eighteenth century, then they must have escaped destruction in 1780. If the chapel was entirely burnt out in 1780, then it seems probable that the reredos was brought here, when the chapel was restored in 1788, from some other church. This, however, is unlikely and it is much more probable to be the original altar-piece of the old Bavarian Chapel.

Within two years of the re-opening of the chapel the revolution in France filled London with scores of French Bishops and hundreds of priests and religious besides great numbers of the French aristocracy. These refugees were kindly received and the revival of Catholicism in England dates from the time of their arrival. The Bavarian became the most fashionable of the Catholic Chapels, and we are told that the streets leading to it were constantly blocked with carriages attending the worshippers. The registers of this period record the marriages here of many notable people and contain many of the most historic family names of France. Fr. Nassau, one of the priests who served this chapel, was sent to Rome to lay the

* I am indebted to Mrs. Arundell Esdaile for this information.

G. Houghton-Brown

Upper right, the street front, which dates from 1788, an earlier building having been largely destroyed in the Gordon Riots in 1780. Lower right, one of the galleries; the ironwork dates from 1875, when the interior of the church was much altered by J. F. Bentley and its eighteenth century character obliterated. Below, general view of the interior, looking towards Bentley's apse.



case of Mrs. Fitzherbert before the Pope from which one may assume that this important lady was in the habit of performing her religious duties here. In 1829 the Catholic Relief Bill was passed, and in 1850 the Pope restored the English Hierarchy and created Dr. Wiseman Cardinal Archbishop of Westminster. The new Cardinal lived at this time in the house of the Vicars Apostolic on the north side of Golden Square and often said Mass in the Bavarian Chapel.

When the King of Prussia assumed the title of German Emperor in 1870, the Bavarian Ambassador was withdrawn from London and the Embassy Chapel became, in 1871, the property of the Archdiocese of Westminster and started its career as a parish church. Its parish includes St. James's and Mayfair.

In 1875, when Monseigneur Talbot was Rector of this Parish Church of the Assumption, those alterations were carried out which obliterated its eighteenth century appearance. Bentley, architect of Westminster Cathedral, designed the apse which required the removal of the Corinthian reredos. It was later adorned with marble and mosaics and an attempt was made to remodel the old Embassy Chapel as a Byzantine Basilica. At that time the balconies were shortened, and their pannelled or balustraded front was replaced by ornamental cast iron. An altar in honour of the Blessed Virgin was built on the right of the High Altar and above it was placed a statue which is said to be the first image of Our Lady to have been carried in public procession since the Reformation. This statue appears to date from about 1850. It is surrounded by a great number of silver ex-voto offerings sent in thanksgiving for answers to prayer

by both Catholics and non-Catholics. The number of votive lights always burning and the many people always to be found here at prayer give the church a remarkable atmosphere of devotion.

Architecturally and historically its unique value lies in the fact that it is the only one of the Embassy Chapels of eighteenth century London which has not been rebuilt. The chapel, known as the Sardinian, which was part of the Countess of Bath's mansion built in 1648, of great historic interest, was destroyed when Kingsway was laid out, and the new church of Sts. Anselm and Cecilia has taken its place. The church of St. Mary Moorfields, founded in the seventeenth century and rebuilt in 1817, which had marble pillars carved by Signor Comalli, a celebrated sculptor of Milan, and frescoes by Signor Aglio, was all pulled down in 1899. The old chapel of the Spanish Ambassador, designed by Joseph Bonomi, gave place to the present building in Spanish Place in 1890. The Ball Room built by Mrs. Cornelys in 1761, where she entertained "the votaries of fashion" in Soho Square, which became a Catholic Chapel in 1791, was succeeded by the new St. Patrick's in 1893. The Virginian Chapel, wrecked during the Gordon Riots, has also been rebuilt. The Portuguese Chapel in South Street is replaced by the Jesuit Church in Farm Street. Thus, of the eighteenth century Embassy Chapels that in Warwick Street is the only one that remains and it, alas, has not been permitted to retain its eighteenth century appearance and its present "ancient" style, though not Gothic, would probably not call forth Pugin's sarcastic advice to those who refused to admire Rood Screens to "go and worship in Warwick Street."

BOOKS

The Life Theme

CITY DEVELOPMENT. By Lewis Mumford. Secker and Warburg. 8s. 6d.

THIS collection of reprinted essays by Lewis Mumford provides short-cut access to a lifetime's work devoted to the study of urbanism. The essays were published over a period of twenty-three years and deal with the social, cultural and morphological aspects of the city. Each is focused on a different layer of the problem. The fact that one mind is here applied with a growing range of perception results in a picture of great plasticity. It is remarkable to observe that, although one witnesses the maturing of an intellect, there is no fundamental change of outlook as far as the urban problem is concerned. Mumford was well set on his way when he adopted the theories of Patrick Geddes (in honour of whose work this volume is named), and directed his research to substantiate his teacher's cyclical thesis of city rise, decline and fall. With this great theme in mind it was possible to give form to the unwieldy material of the evolution of the cities, which he collected and shaped in masterly fashion.

The essays should be read against the background of the rest of Mumford's work. They are only signposts of a gradually developing, and now wholly Mumfordian, philosophy of urbanism. His conclusion is the familiar one, that the metropolitan city, both flower and cancer of our civilization, is a death-trap, to be escaped at all cost in order to regain the life stream. Remedy is to be found in decentralization and the construction of regional organisms. The analysis is represented in this volume by "the City" (1922), a devastating critique of metropolitanism, and the "metropolitan milieu" (1934), showing the human personality in revolt against disintegration, both written before the "Culture of the cities." Some years after this remarkable book, we have in "The social foundations of post-war building" (1941) and the "Plan of London" (1943) the remedial suggestions, set forth with increasing conviction and ideologically underpinned.

It is by no means easy yet to place this writer in relation to other thinkers of our time, or to define exactly wherein his undoubted significance lies. His language, powerfully wielded and controlled, is too glutinous and weighted to appeal to present-day literary tastes, and the panoptic view, the too well rounded thesis, exploited and done to death by Spengler, is suspect to-day. Mumford's functional approach on the analysis side is generally followed, but the same cannot be said of the policy suggested by him. His proposals cut across all the usual ideological alignments, making strange bedfellows of opponents and disciples alike. Antagonism is found with those who, for progressive or reactionary ends, desire still further concentration of power. Monopoly capitalists, who in America like to brand Mumford as a dangerous revolutionary, here join hands with socialist planners, who need concentrated legislative power, before carrying out what paradoxically will be a decentralization policy. For him are isolationists of all shades, and the individualists of the garden city have made him their patron saint. Many by no means socially irresponsible modern architects who are attracted by Mumford's ideas but represent visual interests as well as social ones, fear the disintegration of the environmental picture if Mumford is to be followed. In England, which anyhow will not be confronted with stark alternatives based on abstract theory, a body of opinion is growing which rejects out-and-out regionalism (J. M. Richards, *A Theoretical Basis for Physical Planning*, THE ARCHITECTURAL REVIEW, February, 1942) and recommends compromise in a multi-plane organization of combined regional and metropolitan systems, better suited to the highly urbanized state of the country and the dwindling living space which, quite unlike the American condition, has here to be considered.

Perhaps the significance of this writer derives from his consistent and passionate interpretation of the life theme, apparent in the assertion of life values over those of economics and technics, in the concern with racial survival which, unlike the eugenics of power politics, here stands for the survival of western civilization. His feeling for life in all its forms is not contained in abstract theories only. It is applied to the practice of urbanism in the "Report on Honolulu," which Mumford was invited to produce in 1938. Here regional planning is shown as a truly humanist art, which, to my knowledge, has nowhere else been presented in quite that light before.

Mumford's philosophy is essentially centred on

man. It constitutes a new humanism, which, unlike that of the existentialists, is neither complex nor morbid. Though devastating in his analysis of the present human condition, Mumford is not defeatist. His theme is that of life, of adjustment, of integration. It revolves around the human personality with all its powers fully developed and in harmony with the universe. This is a reinterpretation of the Greek and Renaissance ideal stated with almost nineteenth century optimism. Not in the least metaphysical—Mumford is the gardener not the grave-digger of our civilization—it serves as an adequate image towards which to move on the path of reconstruction in its widest sense.

G. M. KALLMANN

Work of Scholarship

THE THEATRE OF DIONYSUS IN ATHENS. By A. W. Pickard-Cambridge. Oxford University Press. 25s.

THE production, at the close of the eighteenth century, of a carefully illustrated volume of research into the origins and development of the Theatre of Dionysus in Athens would, I imagine, have been an important event. It would have provided the architect, dependent on the works of Stuart and Revett, Penrose and Cockerell, with a most valuable addition to his meagre reference library. Its production in 1946, however, can arouse no similar enthusiasm. It is, none the less, extremely refreshing to see, in this uncertain age, such a well-produced and authoritative study of part of our Classic heritage.

The author, in his preface, shows a degree of enlightenment that is often absent from similar works. He has noted how the archeologist and historian in the past have tended to make assumptions which seem to him "mere superstitions, and contrary to what we know of human nature and freedom—such as these:

- that variations in structure always take place in a logical order, and that the chronological order can be inferred from the logical;
- that careless work in stone is only possible at late periods, and that whatever is to be ascribed to the Classical age must have been relatively perfect (even when buried underground);
- that any structure which is found in stone must previously have existed in wood;
- that no artist (or architect) ever thought of anything for himself, but that whatever any artist embodies in his structures or paintings or reliefs must have been 'derived' from someone else."

With this somewhat revolutionary start, the author then tells us the story of the Greek theatre, from its earliest orchestra terrace floor and natural sloping auditorium up to its reconstruction by the Emperor Nero in A.D. 61, and the subsequent conversion of the orchestra into a water-tight basin for the presentation of aquatic sports. With a wealth of illustration from Aeschylus, Sophocles and Euripides, he describes how and when the raised stage ultimately supplanted the orchestra floor in importance, and how the furnishing of this stage, with movable wooden structures, evolved in increasing complexity to meet the needs of the Periclean drama. It is a work of considerable scholarship which in a previous age might have got the attention it deserves.

CECIL STEWART

Italian Losses

WORKS OF ART IN ITALY, LOSSES AND SURVIVALS IN THE WAR. Part II. H.M.S.O., 1946. 5s.

THE second part of the Italian report of the Committee on the Preservation and Restitution of Works of Art, Archives, etc., comes as a shock after all. The first, dealing with the country south of Bologna, had left us with the impression that, pitiable as such losses as those of Montecassino, the Trinity Bridge in Florence, the west part of S. Lorenzo fuori in Rome, and many others were, on the whole, miraculously little damage had been done. The new volume has at the end seventy pages on the same regions as the first, supplementing the preliminary summings-up of last year. This is preceded by sixty pages of summaries for all provinces of Italy (which no doubt most readers would not expect to find sandwiched between the detailed accounts for north and south of Bologna).

As regards Northern Italy, the regions not contained in Part I, they fill the first seventy pages and are a record of sufferings much worse than could be expected from newspaper correspondents' columns. Destruction was chiefly caused by allied air bombing, and hit the largest cities worst, some minor cities badly enough and the countryside scarcely at all. There is no space here to enumerate even the most heart-rending facts which have now come out, and it must, in all the grief

one feels over these losses, never be forgotten that compared with the wholesale destruction of, say, Cologne or Münster, even Milan has fared amazingly well. Only Genoa (I have not seen it since the war) seems to be in a state as terrible as most of the towns of Germany. "Fifty-five churches, thirteen oratories, three cloisters, one hundred and twenty-nine palaces and villas, three theatres and a score of other buildings . . . were damaged." Damage to the cathedral was not severe, but the mediæval palaces have suffered terribly, and so have those of the Via Garibaldi.

It is hard to decide what individual losses to single out. I would say that for mediæval church architecture the worst disaster is the collapse of a considerable part of S. Ambrogio in Milan, for mediæval secular architecture the destruction of the bridges of Verona, for Renaissance church architecture that of well over half of the Tempio Malatestiano in Rimini (but the building is not beyond repair), and for Renaissance secular architecture that of the Farnese Theatre in Parma. Regarding mediæval painting nothing as bad has happened in Lombardy, Liguria or the Veneto as the loss of the frescoes of S. Chiara at Naples, and of the Camposanto frescoes at Pisa. But for Renaissance painting the obliteration of the Eremitani church in Padua with the Mantegnas is worse than anything lost in Central or Southern Italy. Melozzo's frescoes at S. Biagio, Forlì, are also gone. Turin suffered almost as extensively as Genoa, and Guarini's as well as Juvara's works are affected; the Palazzo Madama probably worse than the others. Of the minor centres further east Brescia, Mantua and Ferrara are perhaps the gravest cases. At Brescia S. Afra was "almost entirely destroyed," and S. Maria dei Miracoli "very badly damaged." At Mantua S. Francesco is down, and at Ferrara S. Benedetto and to a certain extent S. Cristoforo. The Este Castle lost one tower, and was thus luckier than the Sforza Castle at Milan, which suffered "severe damage." In the list of Milanese casualties we find the Ospedale too ("terribly ruined"), the Marino Palace ("gutted"), the Litta Palace ("severe damage"), and the Gothic part of S. Maria delle Grazie.

America has not so far published anything of this standard. There is only H. La Farge's *Lost Treasures of Europe* (Pantheon Books, English edition: B. T. Batsford, 30s.), an amateurish production with over 400 pretty pre-war pictures of buildings all over Europe, interrupted only very occasionally by photographs showing damage. The notes at the end also are scrappy and not even always accurate (e.g. Budapest). Britain can be proud in comparison of its unpretentious but wholly satisfactory effort.

NIKOLAUS PEVSNER

Other Books Received

- AN ARTIST IN NORTH WALES. By Clough Williams-Ellis. Paul Elek. 6s. 6d.
- RECENT ENGLISH ARCHITECTURE, 1920-1940. Selected by The Architecture Club. Country Life. 7s. 6d.
- A B C D—A POCKET BOOK OF ALPHABETS. E. & F. N. Spon, Ltd. 3s. 6d.
- THE CONFERENCE ON INDUSTRIAL DESIGN. Council of Industrial Design and Federation of British Industries.
- BAKELITE PROGRESS. Bakelite, Ltd.
- BUILDING IS YOUR BUSINESS. By Mark Hartland Thomas. Allan Wingate, Ltd. 7s. 6d.
- THE GREAT PALACE OF THE BYZANTINE EMPERORS. A First Report on the Excavations carried out in Istanbul on behalf of the Walker Trust (the University of St. Andrews), 1935-8. Geoffrey Cumberlege, Oxford University Press. 105s.
- BLACK COUNTRY. By Walter Allen. Paul Elek. 9s. 6d.
- U.N. HEADQUARTERS. By Le Corbusier. Reinhold Publishing Corporation. \$3.50.
- THE VITAL FLAME. By Compton Mackenzie. Frederick Muller. 12s. 6d.
- FRENCH TAPESTRY. Edited by Andre Lejard. Paul Elek. 35s.
- FUEL ABSTRACTS. Compiled by the Intelligence Section, Fuel Research Station, E. Greenwich.
- THE ART OF THE FRENCH BOOK. Edited by Andre Lejard. Paul Elek. 50s.
- UNG DANSK ARKITEKTUR. By Helge Finsen. Det Schønbergke Forlag.
- THE PRACTICE OF DESIGN. Edited by Herbert Read. Percy Lund Humphries. 25s.
- ARKITEKTEN, PROFESSOR HACK KAMPMANN REJSEBREV OG SKITSER. Bianco Lunos Bogtrykkeri Arhks., Copenhagen.
- THE GEOMETRY OF ART AND LIFE. By Matila Ghyka. Sheed and Ward. \$4.0.
- THE BOOK OF ROAD SIGNS. By Dudley Noble. William Clowes & Sons for The British Road Federation. 2s. 6d.
- SCHOOL FURNITURE AND EQUIPMENT. By a Sub-Committee of the Standards Committee of The Ministry of Works. His Majesty's Stationery Office. 6d.
- ON TRUST FOR THE NATION. By Clough Williams-Ellis. Paul Elek. 25s.
- PLAN YOUR OWN HOME. By Louise Pinkney Sooy and Virginia Woodbridge. Stanford University Press. (London: Geoffrey Cumberlege). 16s. 6d.
- TOWARDS A NEW ARCHITECTURE. By Le Corbusier. The Architectural Press. 15s.
- THE WILTON DIPTYCH. Gallery Book No. 16. Percy Lund Humphries & Co. 4s. 6d.
- VUILLARD, HIS LIFE AND WORK. By Claude Roger-Marx. Paul Elek. 25s.
- ABBOT SUGER. By Erwin Panofsky. Princeton University Press. (London: Geoffrey Cumberlege). 21s. 6d.

[Inclusion of a book in the above list does not preclude its being reviewed in a future issue. Nor is the list necessarily complete up to the publication date of the current issue.]

ANTHOLOGY

Dickens and the Shakers

As we rode along, we passed a party of Shakers, who were at work upon the road ; who wore the broadest of all broad-brimmed hats ; and were in all visible respects such very wooden men, that I felt about as much sympathy for them, and as much interest in them, as if they had been so many figure-heads of ships. Presently we came to the beginning of the village, and alighting at the door of a house where the Shaker manufactures are sold, and which is the headquarters of the elders, requested permission to see the Shaker worship.

Pending the conveyance of this request to some person in authority, we walked into a grim room, where several grim hats were hanging on grim pegs, and the time was grimly told by a grim clock, which uttered every tick with a kind of struggle, as if it broke the grim silence reluctantly, and under protest. Ranged against the wall were six or eight stiff high-backed chairs, and they partook so strongly of the general grimness, that one would much rather have sat on the floor than incurred the smallest obligation to any of them.

Presently, there stalked into this apartment, a grim old Shaker, with eyes as hard, and dull, and cold, as the great round metal buttons on his coat and waistcoat ; a sort of calm goblin. Being informed of our desire, he produced a newspaper wherein the body of elders whereof he was a member, had advertised but a few days before, that in consequence of certain unseemly interruptions which their worship had received from strangers, their chapel was closed to the public for the space of one year.

CHARLES DICKENS (*American Notes*, 1842).

MARGINALIA

An English Museum of Modern Art

A scheme is afoot to give England an organization which in many ways will be analogous to the Museum of Modern Art, New York. A committee representative of the various arts (including architecture) has been at work for some months making plans for the creation of an Institute of Contemporary Arts, and an appeal is now being made for funds to bring it into being. The first public announcement of the project was made recently by Herbert Read, as chairman of the organizing committee, in the correspondence columns of *The Times*. "The need for such an Institute," he wrote, "will be obvious to all who are aware of the aimless and sporadic character of artistic activities in our capital city. While institutions such as the national galleries, the Arts Council, the British Council, the Courtauld Institute, etc., exist for the purpose of exhibiting contemporary art, nothing of a more direct nature is done to encourage its creation. The B.B.C. and various educational bodies endeavour to teach the appreciation of art, but this again is a policy for consumers, not for producers. What is needed is some centre where artists of all kinds can meet with a co-operative intention, and where their activities can be presented to a public ready to encourage art in those preliminary stages of experiment which are so vital for its development."

"The Institute will differ from existing institutions in that it will initiate definite projects, and not merely collect and exhibit the chance productions of isolated artists. It will attempt to establish a common ground for a progressive movement in the arts, and will enable artists of all kinds to join together in the search for new forms of social expression."

Besides Herbert Read, the organizing committee consists of Frederick Ashton, Jack Beddington, J. B. Brunius, Edward Clark, Alex Comfort, Michel St. Denis, E. C. Gregory, Geoffrey Grigson, G. M. Hoellering, Robert Melville, E. L. T. Mesens, Roland Penrose, J. M. Richards, Peter Watson and W. E. Williams. The proposal is to finance the Institute initially by finding 500 people willing to become founder members by subscribing a minimum of 100 guineas each. When the Institute has once been established

it will be currently financed by the regular support of ordinary subscribing members. Contributions to the foundation fund should be sent to the acting honorary treasurer, Roland A. Penrose, care of Barclay's Bank, 10, Southampton Row, London, W.C.1, and further details can be obtained from the temporary office of the secretary, 23, Brook Street, W.1.

R.I.B.A. News

At a recent meeting of the Royal Institute of British Architects the results of the annual elections to the Council were made public. The following were elected as *Members of Council*: E. Maxwell Fry, C. G. Stillman, L. C. Howitt, Victor Bain, John Swarbrick, Michael Waterhouse, A. C. Bunch, Percy J. Bartlett ; as *Associate Members of Council*: Professor W. G. Holford, Professor J. S. Allen, Colin Penn ; as *Licentiate Member of Council*, Bernard H. Cox. Sir Lancelot Keay was re-elected President.

The R.I.B.A. Prizes and Studentships Pamphlet for 1947-8 is out. It contains full information concerning the various prizes and studentships, together with the details for the competitions where applicable. Copies are obtainable from the R.I.B.A., price 2s., exclusive of postage.

Replanning Britain in Prague

The British Council exhibition, "Replanning Britain," which was shown to more than 47,000 visitors in three centres in Turkey, has been showing in Prague. The exhibition was held in the hall belonging to Umelecka Beseda, the Czech Artists' Organization, and had the support of the BAPS (Blok Architektonických Pokrokových Spolků), the central organization of Czechoslovak architects.

Acknowledgments

Acknowledgments for photographs are due as follows: Two Houses in California, pp. 43-46, *The Architectural Forum*, photographer Roger Sturtevant; Flats in Rio de Janeiro, p. 59, Carlos; Copenhagen Cabinet Makers' Guild, p. 60, George Foto; p. 61, Nos. 5, 6, 7, 11, p. 62, Nos. 17, 20, 21, 22, 23, 24, 25, 26, 27, Maarbjerger Atelier; p. 61, Nos. 8, 9, 10, Enggaard-Larsen; p. 61, No. 12, p. 62, Nos. 18, 19, Struwing; p. 62, Nos. 13, 14, 15, 16, Jacob Kjaer, Brynmawr Factory. For that part of the work on which building has already begun, Messrs. Holland and Hannen and Cubbitts are the contractors.

RÉSUMÉS

For the convenience of its foreign readers THE ARCHITECTURAL REVIEW now contains synopses of its principal contents in French, German and Russian. Other languages are used when the contents of any particular issue are of special interest to those speaking them.

AOÛT 1947

Page 38: Le Frontispice montre les nouveaux bâtiments établis par Sir Giles Gilbert Scott au pied de la Cathédrale de Liverpool. La légende traite des mérites de ce plan, en tant qu'exemple d'urbanisme et tel que le conçoit la vue—mérites qui n'ont rien à voir avec la pauvreté de détails de l'architecture.

Page 39: Les mains à la besogne et les cœurs à Dieu, par J.L. Martin. Les Shakers, où d'après leur appellation officielle — "La Société Unifiée de Ceux qui croient à la seconde Révélation du Christ"—se sont détachés du Quakerisme anglais. Quelques-uns d'entre eux quittèrent l'Angleterre pour l'Amérique en 1774. Les passions de leurs âmes trouvèrent leur expression dans le saut et la danse, d'où leur nom qui signifie "Trembleurs." Ils vivaient suivant l'idéal collectiviste, et ne possédaient rien en propre. Quinze de leurs colonies existaient encore en 1908. Ils s'occupaient principalement de fermage et avaient inventé de nombreuses méthodes pour assurer l'économie de la main d'œuvre et quelques machines industrielles d'un type particulier.

Les Shakers ont, dans de nombreuses sphères d'activité, rompu avec les idées établies, et il y a de plus une étroite analogie—en dépit de tout ce qui les sépare—entre leurs idées et les principes de William Morris et de Lewis Mumford.

Page 43: Deux maisons en Californie, décrites et illustrées. Maison à Piedmont ; Chermayeff et Mayhew architectes. Maison à Redwood ; Ernest Born, architecte.

Page 47: La Voie d'accès du Hedjaz, par J. M. Richards. Jedda, l'unique ville de l'Arabie Saudite où il soit permis aux Européens de vivre, est depuis des siècles le port principal de la presqu'île de l'Arabie. La Mecque, qui n'est qu'à 70 kilomètres de distance, et où les Musulmans seuls peuvent pénétrer, accroit, par son mystérieux éloignement, le prestige de Jedda. Jedda, malgré son aspect de ville commerciale florissante et son port affairé, a peu changé au cours des derniers 150 ans. C'est une cité bien construite, et d'une clarté poussiéreuse mais propre. Les facteurs dominants de l'architecture propre à la Mer Rouge sont la chaleur et l'intensité de la lumière solaire qui demandent des ruelles étroites et ombragées, des balcons et des fenêtres aux volets épais.

Page 53: Nantucket par Talbot Hamlin. Nantucket, dans la Nouvelle-Angleterre était vers 1850 la capitale de l'industrie baleinière du monde, et bien qu'après cette date ce port ait perdu quelque peu

de son importance, et que Nantucket ait de plus en plus connu le chômage, la ville qui devint une station estivale à partir de 1870 est à peu près de nos jours semblable à ce qu'elle était en 1850. Ce n'est ni un Versailles ni un Potsdam, mais l'harmonie partout présente de son architecture est telle que même les quartiers où vivent les pauvres pêcheurs et les nègres sont loin d'être des taudis. Les motifs fondamentaux de Nantucket et la couleur blanche des maisons qui prédomine s'y montrent même dans ces quartiers là.

Page 58: Appartements à Rio de Janeiro, Marcelo, Milton et Mauricio Roberto, architectes ; description et illustrations.

Page 60: Design Review est une section régulière de THE ARCHITECTURAL REVIEW qui traite des différents aspects du dessin industriel. L'exemplaire de ce mois de la "Revue des Ebauches" illustre l'œuvre de quelques ébénistes Danois.

Page 63: Architectural Preview constitue une autre section régulière, qui décrit et illustre des bâtiments qui, bien que leurs architectes aient été définitivement chargés de leur construction ne sont encore que des projets sur la planche à dessin, ou n'ont atteint que les premiers stades d'édification. "L'Avant-Première de l'Architecture" montre une usine du Sud du Pays de Galles, conçue par l'Association Co-opérative des Architectes.

Page 67: La Chapelle Bavarroise par G. Houghton-Brown. En Angleterre, entre 1688 et 1778, on ne pouvait légalement célébrer la Messe que dans les Chapelles des Ambassadeurs de pays étrangers.

Des sept Chapelles des Ambassades que fréquentaient les Catholiques de Londres au cours de cette période, seule, la chapelle bavarroise de Warwick Street, connue maintenant sous le nom de Chapelle de l'Assomption, a survécu. Ces chapelles des Ambassades étaient de pauvres bâtiments nus, car ils devaient attirer aussi peu d'attention que possible. En 1850, le Pape restitua la Hiérarchie Catholique anglaise, et vingt-cinq ans plus tard, Bentley tenta de rétablir la vieille chapelle de l'Ambassade dans le style d'une basilique Byzantine.

Deutsche Zusammenfassung

Seite 38: Auf der Titelseite sind die von Sir Giles Gilbert Scott entworfenen Gebäude unterhalb der Kathedrale von Liverpool abgebildet. Der Text hebt die Vorzüge dieses Planes hervor, als Musterbeispiel einer Stadtanlage, Vorzüge, die von den banalen architektonischen Details völlig unabhängig sind.

Seite 39: Gebet und Arbeit von J. L. Martin. Die "Shaker"—ihr offizieller Name war "Vereinigte Gesellschaft der Gläubigen an Christi Wiederkehr"—sind eine Abzweigung des englischen Quakertums. 1774 sind einige von ihnen nach Amerika ausgewandert. Ihre Seelenkämpfe fanden einen Ausweg im Springen und Tanzen—daher ihr Name. Sie haben allem persönlichen Besitz entsagt und ihr Leben auf streng kommunal Basis aufgebaut. 1908 haben noch fünfzehn Shaker-Siedlungen bestanden. Ihre Haupttätigkeit bestand im Ackerbau ; sie haben eine Reihe von zeitsparenden Vorrichtungen und Maschinen erfunden. Trotz grosser Verschiedenheit besteht eine überraschende Übereinstimmung zwischen ihren Anschauungen und den Grundideen von William Morris und Lewis Mumford. Die Shaker haben sich auf den verschiedensten Gebieten von übernommenen Werten freigemacht.

Seite 43: Zwei Häuser in Kalifornien beschrieben und illustriert. Haus in Piedmont: Architekten Chermayeff und Mayhew. Haus in Redwood: Architekt Ernest Born.

Seite 47: Der Eingang ins Hedjaz von J. M. Richards. Jedda, die einzige Stadt in Saudi-Arabien, in der Europäer leben dürfen, war Jahrhunderte hindurch der Haupthafen der arabischen Halbinsel. Mekka, das nur 40 Meilen von Jedda entfernt ist, und das nur Mohamedaner betreten dürfen, erhöht Jeddas Zauber durch seine geheimnisvolle Ferne. Obgleich Jedda eine aufstrebende Handelsstadt und ein blühender Hafen ist, hat es sich in den letzten 150 Jahren kaum verändert. Es ist eine gut gebaute, heitere, staubige Stadt. Hitze und das intensive Sonnenlicht beherrschen die Bauweise am Roten Meer : sie bedingen enge, schattige Strassen, Balkons und geschützte Fenster.

Seite 53: Nantucket von Talbot Hamlin. Um 1850 war Nantucket in Neu-England die Wallich-Hauptstadt der Welt. Obgleich der Hafen seine Bedeutung nach dieser Zeit eingebüsst hat, hat sich die Stadt, die seit 1870 ein beliebter Sommeraufenthalt wurde, kaum verändert. Nantucket

ist weder Versailles noch Potsdam, aber seine Architektur hat einen so einheitlichen Zug, dass selbst die Stadtteile, in denen arme Fischer und Neger wohnen, keine Elendsviertel sind. Die typische Bauweise von Nantucket und die vorherrschende weisse Farbe der Häuser setzt sich selbst dort durch.

Seite 58: *Etagenhäuser in Rio de Janeiro*. Architekten Marcelo, Milton und Mauricio Roberto, beschrieben und erläutert.

Seite 60: Die "Architectural Review" pflegt in regelmässigen Abständen die verschiedensten Producte der Kunstindustrie zu veröffentlichen. In dieser Nummer werden die Arbeiten dänischer Kunsttischler gezeigt.

Seite 63: Auch die "Architectural Preview" d. h. Vorbesichtigung ist eine bestehende Gepflogenheit. Gebäude, die zwar endgültig in Auftrag gegeben aber noch Skizzen auf dem Reissbrett oder im ersten Stadium der Konstruktion sind, werden illustriert und beschrieben. In dieser Nummer veröffentlicht die "Architectural Preview" eine Fabrik in Süd Wales, die von einer regeminschaft Architekten entworfen wurde.

Seite 67: Die *Bayrische Kapelle von G. Houghton-Brown*. In England durften zwischen 1688 und 1778 nur in den Kapellen der fremden Gesandtschaften Messen celebriert werden. Von den 7 Kapellen der fremden Gesandtschaften, die die Katholiken Londons in dieser Zeit besuchen konnten, besteht heute nur die Bayrische Kapelle in Warwick Street unter dem Namen Marie Himmelfahrt-Kirche. Diese Kapellen waren bescheidene, schmucklose Gebäude. 1850 hat der Papst den englischen katholischen Klerus wieder eingesetzt und 25 Jahre später hat Bentley versucht, die alte Gesandtschaftskapelle zu einer byzantinischen Basilika umzugestalten.

Str. 38. August 1947 г.

На заглавном листе показаны эскизы новых построек у подножия Ливерпульского Собора по проекту Сэр Гилберт Скотт'a.

В пояснительном тексте обсуждаются услуги этой схемы как примера зрительно-конкретизированного замысла в планировке города, совершенно независимые от банальных архитектурных деталей.

Стр. 39. ДЖ. Л. МАРТИН. РУКИ К РАБОТЕ — СЕРДЦА К БОГУ

Религиозная секта так называемых "Шейкер'ов" ("Трясунов"), официально именуемая "Объединенным Обществом Верующих во Второе Пришествие Христа", является ответвлением английского квакерства. Некоторые из принадлежавших к этой секте переселились из Англии в Америку в 1774 г. Их духовные переживания находили свое выражение в прыжках и танцах — отсюда их наименование. Они исповедывали коммунизм на практике: у них отсутствовала личная собственность. Пятнадцать общин этой секты еще существовало в 1908 г. Они главным образом занимались земледелием и скотоводством (фермерством), но вместе с тем они изобрели много трудосберегательных приспособлений и чисто-промышленных машин. Они произвели переоценку принятых ценностей во многих областях. Между их идеями и идеями Вильяма Морриса и Люиса Мамфорда существует близкая параллель, несмотря на все черты различия.

Стр. 43. ДВА ДОМА В КАЛИФОРНИИ

В этой короткой статье дается иллюстрированное описание дома в Пьемонте, по проекту архитекторов Чермаева и Майхю, и дома в Редвуде по проекту архитектора Эрнст Борн'a.

Стр. 47. ДЖ. М. РИЧАРДС. У ВРАТ ХЕДЖАЗА.

Город Педда, единственный город в Сауди Аравии, где разрешается жить европейцам, был испокон веков главным портом Аравийского полуострова. Престиж этого города высоко подымает своею отдаленной таинственностью Мекка, которая лежит только в сорока милях, но куда никто кроме мусульман не допускается. Несмотря на то, что Педда является преуспевающим

торговым городом и процветающим портом, она почти совершенно не изменилась в течении последних ста пятидесяти лет. Город этот хорошо построен, и он отличается чистой, хотя и запыленной, яркостью. Господствующими факторами, определяющими архитектуру у Красного моря, являются сильная жара и чрезвычайная яркость солнечного света. Они то и требуют узких, тенистых улиц, балконов и хорошо защищенных от солнца окон.

Стр. 53. ТАЛБОТ ГАМЛЕН. НАНТАККЕТ.

Город Нантаккет в Новой Англии, США, считался ок. 1850 г. мировой столицей китобойной промышленности. После этого времени гавань потеряла свое значение, и город стал засыпать. Однако, начиная с 1870 г., город стал снова возрождаться превратившись в летний курорт, и в настоящее время он в значительной мере вернул себе свой прежний престиж. Это не Версаль и не Потсдам, но покоряющая гармония его архитектуры такова, что даже те кварталы, где живут бедные рыбаки и негры, не являются "слабами" (годами не ремонтируемые дома, в которых ютится городская беднота). Даже в этих кварталах сохранен основной узор Нантаккета и белый цвет его домов.

Стр. 58. МНОГОКВАРТИРНЫЕ ДОМА В РИО ДЕ ЖАНЕЙРО по проекту архитекторов Марсело, Милтон'a, и Морисно Роберто. Иллюстрированное описание.

Стр. 60.

В "Архитектурном Обозрении" периодически помещаются статьи под заглавием "Обзор Художественного Оформления", в которых разбираются различные стороны художественного оформления промышленных изделий. В настоящей статье показаны примеры работы некоторых датских мастеров столлярного дела.

Стр. 63.

В "Архитектурном Обозрении" помещаются также периодические статьи, описываю-

щие и иллюстрирующие постройки, проекты которых определено заказаны архитекторам, но которые еще находятся в стадии разработки чертежей или же в самой начальной стадии производства строительных работ. В этом номере дается иллюстрированное описание фабрики в Южном Валлисе, спроектированной архитекторами Кооперативного Товарищества.

Стр. 67. ДЖ. ХАУТОН-БРАУН. БАВАРСКАЯ ЧАСОВНЯ

В Англии между 1688 и 1778 гг. можно было легально служить католическую мессу только в домовых церквях ("часовнях") при иностранных посольствах. Из семи таких посольских часовень, обслуживавших Лондонских католиков в течении этого периода, сохранилась по сей день только Баварская Часовня на Уоррик Стрит, ныне известная под именем церкви Успения. Эти посольские часовни были бедными, ничем не украшенными строениями, так как в то время было важно, чтобы они обращали на себя возможно меньше внимания. В 1850 г. Папа восстановил английскую католическую иерархию. Двадцать пять лет спустя Бентлей сделал попытку перестроить эту старинную посольскую часовню в византийскую базилику.

CORRESPONDENCE

Sutherland's Crucifixion

To the Editors,

THE ARCHITECTURAL REVIEW

SIRS,—I suppose that many among the readers of your March issue will have noted that there exists a close affinity between Mr. Graham Sutherland's "Crucifixion" at St. Matthew's, Northampton, and the presentation of the same theme by Grunewald.

They may have wondered, too, why Mr. Marcus Whiffen in his article on Mr. Sutherland's work should not have mentioned this at all. In fact, Mr. Sutherland's "Crucifixion" appears to be what

[continued on page 72]

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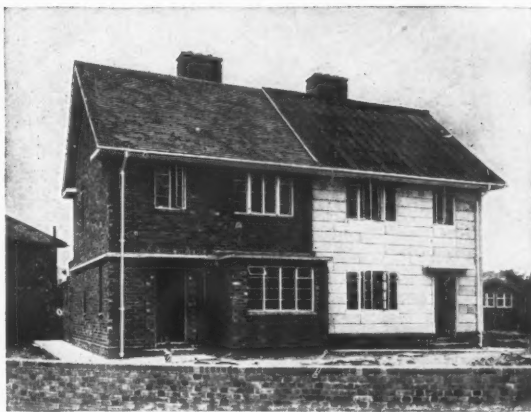
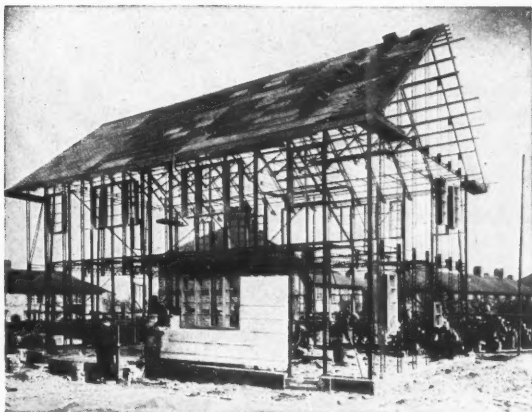


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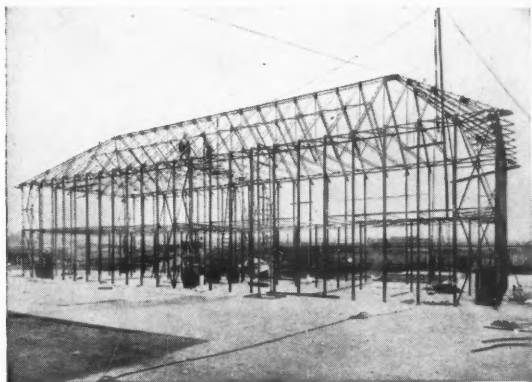
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M-W.63

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Two Crucifixions by Mathias Gruenewald: left, at Basle; right, at Karlsruhe. See letter from Ernest Brandl on this page.

continued from page 70]

may best be called a "free copy" of at least two paintings by Gruenewald, as a comparison with them will show.

The lower half of the figure is almost identical with that on the "Crucifixion" at Basle, an early work by Gruenewald; this becomes most obvious, of course, by looking at the legs and the loin cloth; there is one characteristic difference only in the treatment of the feet; Sutherland makes the left foot cover the right one. Even the concave curve of the string shown at the bottom end of Sutherland's painting has its prototype in the curved lines which are formed by the groups of figures surrounding the Cross, but also in those indicating the landscape in the left background. There is also a strong and

close resemblance regarding the arms and hands in both pictures, in movement as well as in expression, although for a comparison in this respect, a reference to Gruenewald's late Crucifixion, formerly at Karlsruhe, should be even more revealing. The most decisive point here seems to be the treatment of Christ's head: the darkening shadow over the face, the huge crown of thorns, the half-opened mouth. In sum: Sutherland's Crucifixion appears to combine the lower half of the Basle painting, and the upper one of that at Karlsruhe, as far as Christ's figure is concerned; yet, it is significant what happens at the point where both parts meet: the "gothic window" of the rectus abdominus not only is a feature which belongs to Sutherland alone, but


even more gives a clue to the style and character of his work. There seems to be an essential difference, too, between model and copy regarding the colour scheme, and there is, of course, no relation as to size at all.

It should be obvious that stating this does not imply any criticism on Mr. Sutherland's work, nor should the facts mentioned reflect on its artistic qualities. For to an artist the interpretation of another artist's work is a legitimate artistic object, and may well result in creating a new work of art in turn, with an innate law and an immanent spiritual structure of its own, i.e., a new value and a new standard. In fact such interpretations make up a rather important and wholly independent class among works of art.

As Mr. Sutherland's work obviously belongs to this particular group, one has to be aware of this in order to understand the work and to do it justice. It is, therefore, not easy to see why Mr. Whiffen should have passed over so basic, as well as striking, a fact in complete silence. After all he refers to the influence of El Greco, and of "a later, if not greater Spaniard." Or could Mr. Whiffen really have overlooked Gruenewald who is practically everywhere "in the picture"? Yours, etc.,

Kingston-on-Thames. ERNEST BRANDL.

[Mr. Whiffen writes: Whatever one does, there will be someone to blame one for not having done something else. Still, Mr. Brandl has done what he thinks I should have done very nicely. But do interpretations of the kind he describes really make up a "wholly independent" class among works of art? In so far as any such interpretation has "an innate law and an immanent spiritual structure of its own" it can have nothing in common with other such interpretations; in so far as it is mere pastiche it is not a work of art. It is of course true that such interpretations are the result of the same kind of process; emphasis on the process at the expense of the product is the bane of art pedagogy.]



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